

# **2015 U.S. 1 ARTERIAL TRAVEL TIME AND DELAY STUDY**

**MONROE COUNTY, FLORIDA**

**SEPTEMBER 2015**



Prepared by

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# **2015**

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**September 2015**

**Prepared for:  
Monroe County Planning Department**



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# 1. EXECUTIVE SUMMARY

This report contains results and findings of the 2015 Travel Time and Delay Study. The study's primary objective was to monitor the Level of Service (LOS) on U.S. 1 for concurrency management purposes pursuant to Chapter 163, Florida Statutes and Monroe County Land Development Regulations. The methodology adopted for this study was established by the U.S. 1 Level of Service Task Force in 1993 and amended in 1997. The methodology establishes a procedure for using travel speeds as a means of assessing the level of service and reserve capacity of U.S. 1.

Both Monroe County and the FDOT have adopted a LOS C Standard for U.S. 1. Further, 45 mph has been adopted as the LOS C Standard for the entire length of U.S. 1 regardless of the posted speed limits. Under the adopted growth management process if the overall LOS for U.S. 1 falls below the LOS C Standard, then no additional land development will be allowed in the Florida Keys.

The 2015 results are presented in the following table:

**TABLE 1**  
**AVERAGE TRAVEL SPEEDS AND LEVELS OF SERVICE**

Segment	Name of Segment	Beginning Control Point	Ending Control Point	Beginning Mile Marker	Ending Mile Marker	LOS 2013	LOS 2015	Median Speed 2013	Median Speed 2015
1	Stock Island	Cow Key Bridge (N)	Key Haven Boulevard	4.0	5.0	B	B	33.1	32.9
2	Boca Chica	Key Haven Boulevard	Rockland Drive	5.0	9.0	A	A	57.1	58.1
3	Big Coppitt	Rockland Drive	Boca Chica Road	9.0	10.5	B	B	46.5	47.2
4	Saddlebunch	Boca Chica Road	Harris Channel Bridge (N)	10.5	16.5	C	C	51.2	51.7
5	Sugarloaf	Harris Channel Bridge (N)	Bow Channel Bridge (N)	16.5	20.5	A	A	47.4	47.5
6	Cudjoe	Bow Channel Bridge (N)	Spanish Main Drive	20.5	23.0	A	A	48.0	46.9
7	Summerland	Spanish Main Drive	East Shore Drive	23.0	25.0	B	B	44.9	44.1
8	Ramrod	East Shore Drive	Torch-Ramrod Bridge (S)	25.0	27.5	B	A	45.8	46.6
9	Torch	Torch-Ramrod Bridge (S)	N. Pine Channel Bridge (N)	27.5	29.5	A	A	47.9	47.5
10	Big Pine	N. Pine Channel Bridge (N)	Long Beach Drive	29.5	33.0	B	C	40.1	38.0
11	Bahia Honda	Long Beach Drive	7-Mile Bridge (S)	33.0	40.0	B	B	53.7	52.1
12	7-Mile Bridge	7-Mile Bridge (S)	7-Mile Bridge (N)	40.0	47.0	B	C	54.9	52.6
13 <sup>(1)</sup>	Marathon	7-Mile Bridge (N)	Coco Plum Drive	47.0	54.0	A	A	35.8	37.9
14 <sup>(1)</sup>	Grassy	Coco Plum Drive	Toms Harbor Ch Bridge (S)	54.0	60.5	C	C	51.0	51.5
15	Duck	Toms Harbor Ch Bridge (S)	Long Key Bridge (S)	60.5	63.0	D	B	47.8	50.1
16 <sup>(2)</sup>	Long	Long Key Bridge (S)	Channel #2 Bridge (N)	63.0	73.0	C	B	51.2	48.8
17 <sup>(3)</sup>	L Matecumbe	Channel #2 Bridge (N)	Lignumvitae Bridge (S)	73.0	77.5	D	D	49.9	48.4
18 <sup>(3)</sup>	Tea Table	Lignumvitae Bridge (S)	Tea Table Relief Bridge (N)	77.5	79.5	E	D	47.4	45.7
19 <sup>(3)</sup>	U Matecumbe	Tea Table Relief Bridge (N)	Whale Harbor Bridge (S)	79.5	84.0	D	C	40.2	38.5
20 <sup>(3)</sup>	Windley	Whale Harbor Bridge (S)	Snake Creek Bridge (N)	84.0	86.0	C	C	41.2	37.9
21 <sup>(3)</sup>	Plantation	Snake Creek Bridge (N)	Ocean Boulevard	86.0	91.5	B	C	41.3	38.5
22	Tavernier	Ocean Boulevard	Atlantic Boulevard	91.5	99.5	A	A	46.9	48.5
23	Key Largo	Atlantic Boulevard	C-905	99.5	106.0	A	A	43.9	44.8
24	Cross	C-905	County Line Sign	106.0	112.6	B	B	52.9	52.0
Overall				4.0	112.6	C	C	45.9	45.1

(1) - City of Marathon

(2) - Includes City of Layton

(3) - Village of Islamorada

Segments within area of concern

Segments with NO Reserve Capacity

- The overall travel speed on U.S. 1 for 2015 is 45.1 mph;
- Compared to 2013, the median segment speeds in ten (10) of the 24 segments increased ranging between 0.1 mph to 2.3 mph;
- Compared to 2013, the median segment speeds in, fourteen (14) of the 24 segments decreased ranging from -0.2 mph to -3.3 mph; majority of the speed reductions were in the middle and upper keys;
- The largest difference and decrease in speed (-3.3 mph) was recorded on Segment # 20 (Windley – MM 84.0 to MM 86.0); however, the LOS remained the same at 'C';
- The largest increase in speed (2.3 mph) was recorded on Segment # 15 (Duck – MM 60.5 to MM 63.0), which resulted in a LOS change from 'D' to 'B'. The removal of the temporary signal at the entrance to Hawks Cay to manage the Duck Key Bridge rehabilitation is the primary reason for this speed increase. The rehabilitation project (and the removal of the temporary signal) was completed in the fall of 2013.

Segments with reserve speeds of less than or equal to 3 mph should be given particular attention when approving development applications. The Saddlebunch Keys (MM 10.5 to MM 16.5) in the lower keys, Big Pine Key (MM 29.5 to MM 33.0), 7-Mile Bridge (MM 40.0 to MM 47.0) and a 12 mile segment on the upper keys (5 segments) starting from L Matecumbe Key (MM 73.0) to Plantation Key (MM 91.5) are within the 'area of concern'; 2 of the 5 segments have no reserve volumes. The 7-Mile Bridge segment could be discarded from the concern list, since delays are mainly due to the temporary maintenance activity.

Road widening is a typical capacity improvement remedy exercised by most municipalities. In Monroe County, however road widening, specifically along U.S. 1 is restricted by the adopted comprehensive plan policies to preserve and protect the fragile ecological conditions. There are other less intrusive remedies that could be explored and evaluated to improve the traffic flow and the capacity of U.S. 1; they include:

- Identifying strategic locations to add turn lanes.
- Conducting speed studies on selected segment of U.S. 1 to confirm the posted speed limits are correct, if necessary.
- Consolidating driveways/access points to reduce/minimize friction.
- Enhancing signal timing at existing signalized intersections along U.S. 1 to improve the traffic flow.
- Not allowing new signalized intersections along U.S. 1 if a safe alternative access exists or it could be provided to accommodate the turning movements.
- Improving the conditions along the county maintained local streets to minimize U.S. 1 being used as the local street.

U.S. 1 is a state maintained roadway. Therefore, any modifications/ improvements to U.S. 1 have to be developed in collaboration with the Florida Department of Transportation.

## 2. INTRODUCTION

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The U.S. 1 Arterial Travel Time and Delay Study has been undertaken as part of the ongoing contract between URS Corporation and Monroe County to provide Transportation Planning Services to the Monroe County Planning Department.

Monroe County has conducted travel time and delay studies of U.S. 1 on an annual basis since 1991 to 2013; and on a biennial basis since 2013. The data collection for years 1991 through 1996 was conducted by the Monroe County Planning Department, with assistance from the Monroe County Engineering Department, and the Florida Department of Transportation (FDOT). URS has collected the data for years 1997 through 2015, on behalf of the Monroe County Planning Department with assistance from the agencies identified above. This report contains the travel time / delay data and findings for the year 2015. It should be noted that a delay study was not conducted for year 2014 per Monroe County and FDOT agreement.

The U.S. 1 Arterial Travel Time and Delay Study's primary objective is to monitor the level of service on U.S. 1 for concurrency management purposes pursuant to Chapter 163, Florida Statutes and Section 114 of the Monroe County Land Development Regulations. Although predominantly an uninterrupted flow two-lane roadway, U.S. 1's uniqueness warrants an alternative LOS evaluation process to that found in the Highway Capacity Manual (HCM).

The U.S. 1 Level of Service Task Force was formulated in 1992 to develop methodology for U.S. 1 that utilizes an empirical relationship between the volume-based capacities and the speed-based level of service (LOS). The U.S. 1 Level of Service Task Force was a multi-agency group with members from Monroe County, the Florida Department of Transportation, and the Department of Economic Opportunity (formerly known as Florida Department of Community Affairs - DCA). The methodology established by the task force is a procedure for using travel speeds as a means of assessing the level of service and reserve capacity of U.S. 1. Each member organization of the Task Force has endorsed the methodology. A partial copy of this methodology titled "A Methodology to Assess Level of Service on U.S. 1 in the Florida Keys"- January 1993, is contained in Appendix A.

The U.S. 1 Level of Service Task Force last met in 1997 to reevaluate the LOS procedure. After several meetings the Task Force concluded that the Speed Based LOS methodology should be continued to be used to assess the LOS along U.S. 1 in Monroe County with a minor change; the signal delay for LOS C threshold value was increased to 25 seconds from 15 seconds to account for recent changes in the HCM.

Pursuant to Sections 114-2(a)(1)(a) of the Land Development Code (LDC), U.S. 1 shall have sufficient available capacity to operate at LOS C on an overall basis as measured by the U.S. 1 Level of Service Task Force Methodology. In addition, the segments of U.S. 1, which would be directly impacted by a proposed development's access to U.S. 1, shall have sufficient available capacity to operate at LOS C. Sections 114-2(a)(1)(c) of the LDC states, in areas that are served by inadequate transportation facilities on U.S. 1, development may be approved, provided that the development in combination with all other permitted development will not decrease travel speed by more than five percent below LOS C.

Although there has never been a countywide development restriction, Big Pine Key between 1994 and 2002 experienced a localized development restriction. Following the 2012 LOS evaluation, the Monroe County Board of County Commissioners (BOCC) directed the planning staff to re-write the LDC to remove the segment based development restriction.

### 3. MONROE COUNTY LEVEL OF SERVICE (LOS) AND RESERVE CAPACITY ASSESSMENT OVERVIEW

U.S. 1 (Overseas Highway) is the only principal arterial serving people and visitors in the Keys. The unique geography, land use patterns and trip making characteristics of the Florida Keys present a challenge in developing and applying a reasonable and acceptable method to assess LOS.

Although U.S. 1 in the Florida Keys is predominantly an uninterrupted-flow, two-lane roadway, its uniqueness warrants an alternative LOS evaluation process to the methodology provided in the *Highway Capacity Manual*.

A uniform method was developed in 1992 by the U.S. 1 Level of Service Task Force to assess the level of service on U.S. 1, and has not changed since the 1997 amendment. The adopted method considers both the overall level of service from Key West to the mainland, and the level of service on 24 segments (See Table 2). The methodology was developed from basic criteria and principles contained in Chapter 7 (Rural Multilane Highways), Chapter 8 (Rural Two-Lane Highways) and Chapter 11 (Urban and Suburban Arterials) of *Highway Capacity Manual*. The methodology establishes a procedure for using travel speeds as a means of assessing the level of service and reserve capacity of U.S. 1 in the Florida Keys.

**TABLE 2**  
**U.S. 1 ROADWAY SEGMENTS**

SEG NO.	APPROXIMATE MILE - MARKER		CONTROL POINTS		KEY(S)
	Beginning	Ending	Beginning	Ending	
1	4.0	5.0	Cow Key Bridge (N)	Key Haven Boulevard	Stock Island, Key Haven
2	5.0	9.0	Key Haven Boulevard	Rockland Drive	Boca Chica, Rockland
3	9.0	10.5	Rockland Drive	Boca Chica Road	Big Coppitt
4	10.5	16.5	Boca Chica Road	Harris Channel Bridge (N)	Shark, Saddlebunch
5	16.5	20.5	Harris Channel Bridge (N)	Bow Channel Bridge (N)	Lower Sugarloaf, Upper Sugarloaf
6	20.5	23.0	Bow Channel Bridge (N)	Spanish Main Drive	Cudjoe
7	23.0	25.0	Spanish Main Drive	East Shore Drive	Summerland
8	25.0	27.5	East Shore Drive	Torch-Ramrod Bridge (S)	Ramrod
9	27.5	29.5	Torch-Ramrod Bridge (S)	N. Pine Channel Bridge (N)	Torch
10	29.5	33.0	N. Pine Channel Bridge (N)	Long Beach Drive	Big Pine
11	33.0	40.0	Long Beach Drive	7- Mile Bridge (S)	W. Summerland, Bahia Honda, Ohio
12	40.0	47.0	7- Mile Bridge (S)	7- Mile Bridge (N)	7-Mile Bridge
13	47.0	54.0	7- Mile Bridge (N)	Cocoa Plum Drive	Marathon, Key Colony Beach
14	54.0	60.5	Cocoa Plum Drive	Toms Harbor Ch Bridge (S)	Fat Deer Crawl, Grassy
15	60.5	63.0	Toms Harbor Ch Bridge (S)	Long Key Bridge (S)	Duck, Conch
16	63.0	73.0	Long Key Bridge (S)	Channel # 2 Bridge (N)	Long, Fiesta, Craig
17	73.0	77.5	Channel #2 Bridge (N)	Lignum Vitae Bridge (S)	Lower Matecumbe
18	77.5	79.5	Lignum Vitae Bridge (S)	Tea Table Relief Bridge (N)	Fill
19	79.5	84.0	Tea Table Relief Bridge (N)	Whale Harbor Bridge (S)	Upper Matecumbe
20	84.0	86.0	Whale Harbor Bridge (S)	Snake Creek Bridge (N)	Windley
21	86.0	91.5	Snake Creek Bridge (N)	Ocean Boulevard	Plantation
22	91.5	99.5	Ocean Boulevard	Atlantic Boulevard	Key Largo
23	99.5	106.0	Atlantic Boulevard	C-905	Key Largo
24	106.0	112.5	C-905	County Line Sign	Key Largo, Cross Key

NOTE: (N) and (S) refer to the north and south side of the bridges respectively

The travel speeds for the entire 108-mile stretch of U.S. 1 and the 24 individual segments are established by conducting travel time runs during the peak season. The peak season, for the purpose of this study, has been established by the task force as the six-week window beginning the second week of February and ending the fourth week of March.

Overall speeds are those speeds recorded over the 108-mile length of the Keys between Key West and Miami-Dade County. Overall speeds reflect the conditions experienced by long distance trips or traffic traveling the entire length of the Keys. Given that U.S. 1 is the only principal arterial in unincorporated Monroe County, the movement of long distance traffic is an important consideration.

Both Monroe County and the FDOT have adopted a LOS C Standard for U.S. 1. Regardless of the posted speed limits, 45 mph has been adopted as the LOS C Standard for the entire length of U.S. 1. Under the adopted growth management process if the overall LOS for U.S. 1 falls below the LOS C Standard, then no additional land development will be allowed in the Florida Keys.

Segment speeds are the speeds recorded within individual links of U.S. 1. The segments were defined by the Task Force to reflect roadway cross-sections, speed limits, and geographical boundaries. Segment speeds reflect the conditions experienced during local trips. Given that U.S. 1 serves as the "main street" of the Keys, the movement of local traffic is also an important consideration on this multipurpose highway.

A comparison of average posted speed limits and the average travel speeds for individual segments leads to the level of service on the respective segments along U.S. 1. The difference between the segment travel speeds and the LOS C Standard is called reserve speed. The reserve speed is converted to an estimated reserve capacity of additional traffic volumes and corresponding additional development. If the travel speed falls below the LOS C Standard, additional trips equivalent to 5% of LOS C capacity are allowed, to accommodate a limited amount of land development to continue until traffic speeds are measured again the following year or until remedial actions are implemented.

## **4. DATA COLLECTION**



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The travel time, delay, and distance data were collected by URS staff. A summary of the data collection methodology and the data collected is presented in Appendices A and B respectively.

The data were recorded by date, day of the week, time of the day, and direction. The field data collection took place between March 1, 2015 and March 14, 2015. The results are included in Appendix B. Fourteen (14) round trips were made to successfully complete the twenty-eight (28) runs. These runs represent a sample of two runs of each day of the week. Every one of the twenty-eight travel time run data sheets was quality checked. The seven-day, 24-hour traffic data were collected in Islamorada, Marathon, and Big Pine Key from March 3, 2015 to March 9, 2015, concurrently with the travel time runs. The volume data is provided in Appendix C.

The field studies employed the staggered schedule of departure times previously approved by the Task Force so as to capture peak hour conditions in as many different locations as possible during the approximately 2.5-hour one-way trip between Key West and the mainland. The staggered schedule of departure time also helps to capture the varied trip purposes and time frames within the Keys. For example, the 1:45 pm departure time from Florida City helps to capture the evening peak traffic condition in the lower keys and non-peak conditions in the rest of the keys. Alternatively, the 3:15 pm departure time from Florida City helps to capture the evening peak traffic conditions in the upper keys and non-peak conditions in the rest of the Keys. The 2015 field data collection timetable is included in Appendix I.

## **5. FIELD OBSERVATIONS**

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## Traffic Signals

There are 18 traffic signals and one rectangular rapid flashing beacon (RRFB) in operation along the U.S. 1 study corridor:

<u>LOCATION</u>	<u>MILE MARKER (MM)</u>	<u>SEGMENT</u>
College Road	4.4	1
Cross Street	4.6	1
McDonald Avenue	4.8	1
Crane Boulevard	19.5	5
Key Deer Boulevard	30.3	10
33 <sup>rd</sup> Street / School Crossing	48.5	13
Sombrero Beach Road	50.0	13
107 <sup>th</sup> Street	52.4	13
109 <sup>th</sup> Street	52.5	13
Pedestrian Crossing	53.0	13
Sadowski Causeway	53.5	13
Coco Plum Drive	54.0	13/14
Woods Avenue / School Crossing	90.0	21
Sunshine Road	90.5	21
Ocean Boulevard	91.5	21/22
Atlantic Boulevard	99.5	22/23
RRFB – Buttonwood Drive	99.8	23
Tarpon Basin Drive	101.0	23
Pedestrian Crossing	105.0	23

As was done in the past, for the pedestrian signals at MM 53, and MM 105, only a partial impact of the signal was considered. The signal delays for segments with signals at the end/beginning, such as Coco Plum Drive, Ocean Boulevard and Atlantic Boulevard intersections, are shared between the two segments.

The three closely spaced traffic signals in Stock Island (Segment 1) were observed to experience additional delay events (23 this year vs. 22 in 2013) with significant increase in delay time (19 minutes and 34 seconds vs. 8 minutes and 44 seconds) compared to 2013.

The five traffic signals and the two pedestrian signals in Marathon (Segment 13) were observed to experience more delays compared to 2013. Both the number of delay events (52 this year vs. 38 in 2013) and the delay time (27 minutes and 6 seconds this year vs. 23 minutes and 13 seconds in 2013) caused by these signals have increased.

The traffic signal at the Crane Boulevard intersection (Segment 5) had a comparable number of northbound delay events (2 in 2013 and 2015) and delay time (42 seconds in 2015 vs. 46 seconds in 2013). There were no delay events recorded at this signal on the southbound direction in 2015, which is a decrease from 2013 with 1 delay event of 17 seconds.

Segment 1 and Segment 13 are defined as interrupted segments, meaning that interruptions such as signals are expected. The changes in delay time due to these signals may not significantly influence the individual segment operating conditions because they are designated as having interrupted flow conditions; however, it does have an effect on the overall travel speeds.

### Traffic Counts

Mechanical traffic counters and hoses were installed on March 3, 2015 at the following locations:

- Big Pine Key, on the south side of the North Pine Channel Bridge (MM 29);
- Marathon, in front of McDonalds (MM 50);
- Upper Matecumbe, on the south side of the Whale Harbor Bridge (MM 84).

The traffic volumes during the 2015 study period were found to be higher than the 2013 study period traffic volumes (see Table 3 in page 10).

On Big Pine Key additional traffic volume data were collected to identify localized differences in traffic volumes throughout U.S. 1 in the island of Big Pine Key.

## 6. RESULTS AND DISCUSSIONS

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### Traffic Volumes

U.S. 1 is predominately a four-lane facility in Marathon and a two-lane facility in Upper Matecumbe and Big Pine Key. Seven-day continuous traffic counts recorded at these three locations along U.S. 1 yielded the following average daily traffic (ADT) and annual average daily traffic (AADT) volumes for 2015. The volume data for the 5-day and 7-day is the average of the raw volumes counted. The 7-day averaged volumes have been adjusted using 2014 seasonal and axle factors to estimate the 2015 AADT's. The traffic counts were recorded between March 3 and March 9, 2015. Summaries have been included in Appendix C.

<u>Location</u>	<u>5-Day ADT</u>	<u>7-Day ADT</u>	<u>AADT</u>
Big Pine Key (MM 29)	22,833	22,106	20,139
Marathon (MM 50)	38,824	38,144	34,243
Upper Matecumbe (MM 84)	26,079	25,817	23,002

The average weekday (5-Day ADT) and the average weekly (7-Day ADT) traffic volumes, compared to 2013 data, at Marathon, Upper Matecumbe and Big Pine Key have increased in 2015. Likewise, the AADT have increased. The seasonal factor recorded by FDOT has not changed while the axle factor is minimally higher. A detailed historical comparison of the U.S. 1 traffic counts for the period 1993 to 2015 is presented in Appendix D. A comparison of the most recent seven years of data collection is presented on Table 3 and represented graphically in Figure 1.

U.S. 1 historical traffic growth is depicted in a regression analysis graph in Figure 2. A linear regression analysis of the AADT at each of the three locations over the last twenty two years indicates that statistically there is virtually no overall traffic growth within the Marathon and Upper Matecumbe count locations and a slight decreasing trend in traffic volumes for Big Pine Key.

### Overall Speeds

For the purpose of this study, overall speeds are those speeds recorded over the 108-mile length of U.S. 1 in the Keys between Key West and the Miami-Dade County line. Overall speeds reflect the conditions experienced during long distance or through trips. Given that U.S. 1 is the only principal arterial in Monroe County, the movement of through traffic is an important consideration.

The levels of service (LOS) criteria for overall speeds on U.S. 1 in Monroe County, as adopted by the Task Force, are as follows:

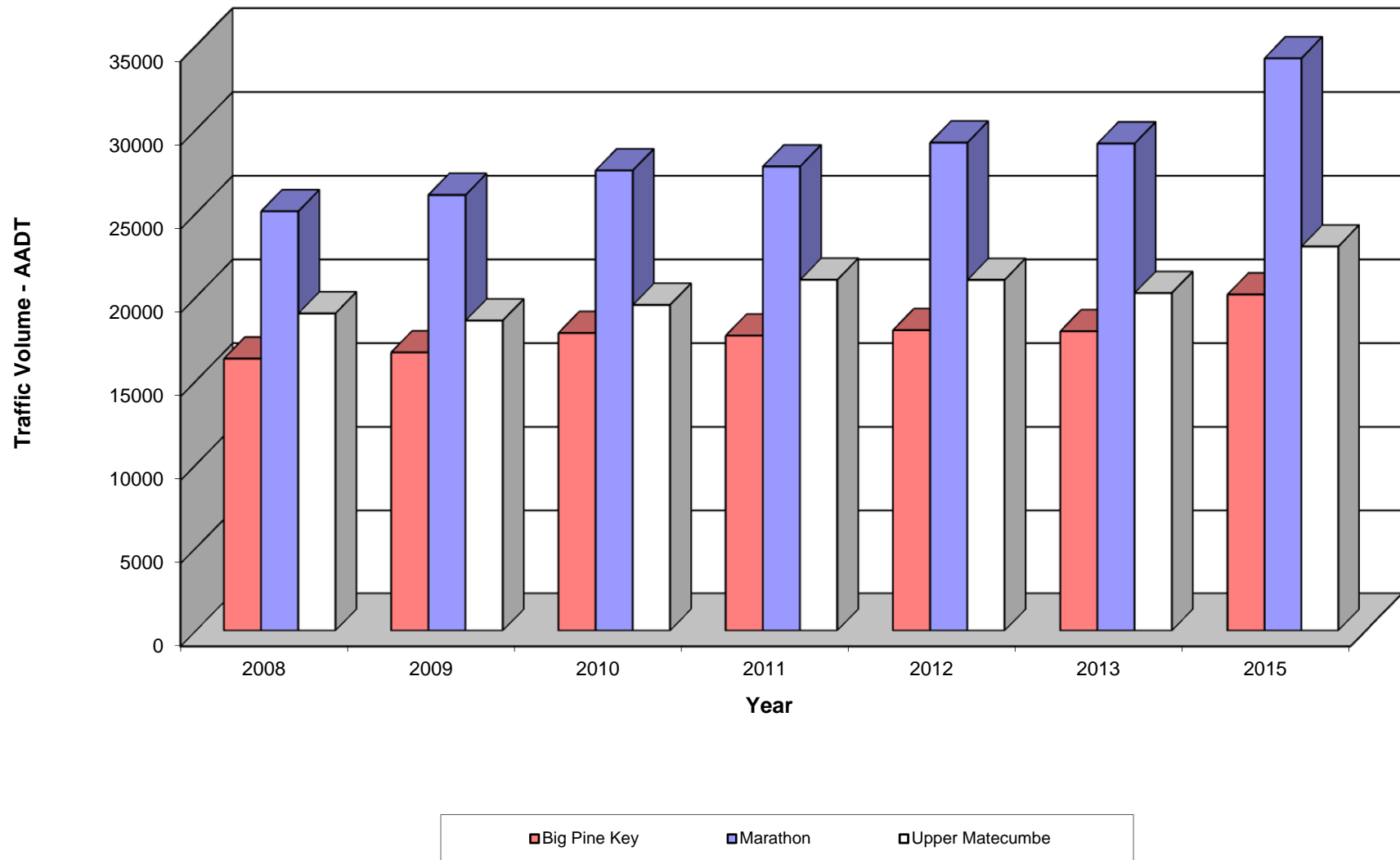
LOS A	51.0 mph or above
LOS B	50.9 mph to 48 mph
LOS C	47.9 mph to 45 mph
LOS D	44.9 mph to 42 mph
LOS E	41.9 mph to 36 mph
LOS F	below 36 mph

Both Monroe County and the FDOT have adopted a LOS C standard for U.S. 1.

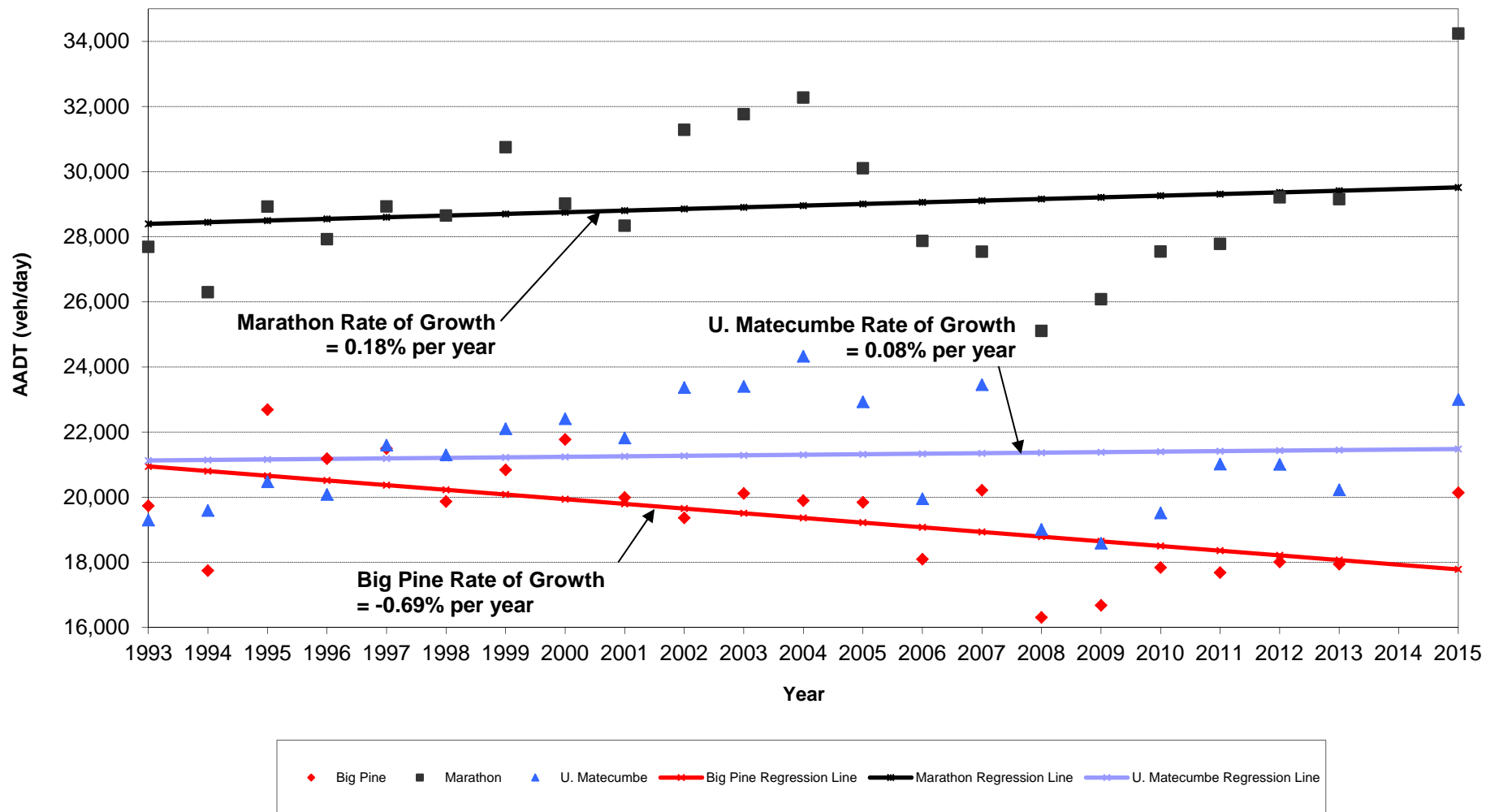
**TABLE 3**  
**U.S. 1 TRAFFIC COUNTS – HISTORICAL COMPARISON**

	2008		2009		2010		2011		2012		2013		2015	
	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change
<b>Big Pine</b>														
5 – Day Average	21,495	-14.82%	21,242	-1.18%	20,651	-2.78%	20,468	-0.88%	21,056	2.87%	20,986	-0.33%	22,833	8.80%
7 – Day Average	20,612	-19.33%	20,656	0.21%	20,115	-2.62%	20,070	-0.22%	20,579	2.53%	20,066	-2.49%	22,106	10.17%
AADT	16,308	-19.33%	16,680	2.28%	17,842	6.97%	17,684	-0.88%	18,011	1.85%	17,943	-0.38%	20,139	12.24%
<b>Marathon</b>														
5 – Day Average	34,414	-6.34%	34,193	-0.64%	31,883	-6.76%	32,156	0.85%	34,145	6.19%	34,097	-0.14%	38,824	13.86%
7 – Day Average	31,731	-8.85%	32,298	1.79%	30,548	-5.42%	31,097	1.79%	32,985	6.07%	32,783	-0.61%	38,144	16.35%
AADT	25,106	-8.84%	26,081	3.88%	27,547	5.62%	27,782	0.85%	29,208	5.13%	29,153	-0.19%	34,243	17.46%
<b>Upper Matecumbe</b>														
5 – Day Average	23,416	-16.17%	23,071	-1.47%	22,588	-2.09%	24,326	7.69%	24,561	0.97%	23,656	-3.68%	26,079	10.24%
7 – Day Average	23,024	-18.96%	23,016	-0.03%	22,634	-1.66%	24,508	8.27%	24,936	1.75%	23,164	-7.11%	25,817	11.45%
AADT	19,008	-18.96%	18,585	-2.23%	19,516	5.01%	21,017	7.69%	21,009	-0.04%	20,226	-3.73%	23,002	13.72%

**Figure 1: U.S. 1 AADT - HISTORICAL COMPARISON**



# Figure 2: U.S. 1 Historical Traffic Growth AADT



The median overall speed during the 2015 study was 45.1 mph, which is 0.8 mph lower than the 2013 median speed of 45.9 mph. The mean operating speed was 44.8 mph with a 95% confidence interval of plus or minus 0.8 mph. The median speed corresponds to LOS C conditions. The highest overall speed recorded in the study was 49.1 mph (0.7 mph higher than the 2013 highest overall speed of 48.4 mph), which occurred on Monday, March 2, 2015 between 4:00 p.m. and 6:30 p.m., in the northbound direction. The lowest overall speed recorded was 39.4 mph (1.8 mph lower than the 2013 lowest overall speed of 41.2 mph), which occurred on Saturday, March 14, 2015 between 2:45 p.m. and 6:15 p.m. in the southbound direction. The 2015 travel speed data is summarized in Appendix E. Speed comparisons to previous years are provided in Appendix F.

### Segment Speeds

Segment speeds are the speeds recorded within individual links of U.S. 1. The segments were defined by the Task Force to reflect roadway cross-sections, speed limits, and geographical boundaries. Segment speeds reflect the conditions experienced during local trips. Given that U.S. 1 serves as the "main street" of the Keys, the movement of local traffic is also an important consideration on this multipurpose highway.

The level of service criteria for segment speeds on U.S. 1 in Monroe County depends on the flow characteristics and the posted speed limits within the given segment. The criteria, listed by type of flow characteristic, are explained in Appendix A, and summarized below.

#### Interrupted Flow

LOS A  $\geq$  35 mph  
LOS B  $\geq$  28 mph  
LOS C  $\geq$  22 mph  
LOS D  $\geq$  17 mph  
LOS E  $\geq$  13 mph  
LOS F < 13 mph

#### Uninterrupted Flow

LOS A 1.5 mph above speed limit  
LOS B 1.5 mph below speed limit  
LOS C 4.5 mph below speed limit  
LOS D 7.5 mph below speed limit  
LOS E 13.5 mph below speed limit  
LOS F more than 13.5 mph below speed limit

For all "uninterrupted" segments containing isolated traffic signals, the travel times were reduced by 25 seconds per signal to account for lost time due to signals. The Marathon and the Stock Island segments are considered "interrupted" flow facilities. Therefore, no adjustments were made to travel times to account for signals on these segments.

The segment limits, the median travel speeds, and the 2013 and the 2015 LOS are presented in Appendix G and shown on Figure 3. The median segment speed ranged from 58.1 mph (LOS A) in the Boca Chica segment to 32.9 mph (LOS B) in the Stock Island segment. The level of service determined from the 2015 travel time data yield the following level of service changes as compared to 2013 data:



Segment	Beginning Control Point	Ending Control Point	Beginning Mile Marker	Ending Mile Marker	LOS 13	LOS 15	Median Speed 13	Median Speed 15
1	Cow Key Bridge (N)	Key Haven Boulevard	4.0	5.0	B	B	33.1	32.9
2	Key Haven Boulevard	Rockland Drive	5.0	9.0	A	A	57.1	58.1
3	Rockland Drive	Boca Chica Road	9.0	10.5	B	B	46.5	47.2
4	Boca Chica Road	Harris Channel Bridge (N)	10.5	16.5	C	C	51.2	51.7
5	Harris Channel Bridge (N)	Bow Channel Bridge (N)	16.5	20.5	A	A	47.4	47.5
6	Bow Channel Bridge (N)	Spanish Main Drive	20.5	23.0	A	A	48.0	46.9
7	Spanish Main Drive	East Shore Drive	23.0	25.0	B	B	44.9	44.1
8	East Shore Drive	Torch-Ramrod Bridge (S)	25.0	27.5	B	A	45.8	46.6
9	Torch-Ramrod Bridge (S)	N.Pine Channel Bridge (N)	27.5	29.5	A	A	47.9	47.5
10	N.Pine Channel Bridge (N)	Long Beach Drive	29.5	33.0	B	C	40.1	38.0
11	Long Beach Drive	7-Mile Bridge (S)	33.0	40.0	B	B	53.7	52.1
12	7-Mile Bridge (S)	7-Mile Bridge (N)	40.0	47.0	B	C	54.9	52.6
13	7-Mile Bridge (N)	Coco Plum Drive	47.0	54.0	A	A	35.8	37.9
14	Coco Plum Drive	Toms Harbor Ch Bridge (S)	54.0	60.5	C	C	51.0	51.5
15	Toms Harbor Ch Bridge (S)	Long Key Bridge (S)	60.5	63.0	D	B	47.8	50.1
16	Long Key Bridge (S)	Channel *2 Bridge (N)	63.0	73.0	C	B	51.2	48.8
17	Channel *2 Bridge (N)	Lignumvitae Bridge (S)	73.0	77.5	D	D	49.9	48.4
18	Lignumvitae Bridge (S)	Tea Table Relief Bridge (N)	77.5	79.5	E	D	47.4	45.7
19	Tea Table Relief Bridge (N)	Whale Harbor Bridge (S)	79.5	84.0	D	C	40.2	38.5
20	Whale Harbor Bridge (S)	Snake Creek Bridge (N)	84.0	86.0	C	C	41.2	37.9
21	Snake Creek Bridge (N)	Ocean Boulevard	86.0	91.5	B	C	41.3	38.5
22	Ocean Boulevard	Atlantic Boulevard	91.5	99.5	A	A	46.9	48.5
23	Atlantic Boulevard	C-905	99.5	106.0	A	A	43.9	44.8
24	C-905	County Line Sign	106.0	112.6	B	B	52.9	52.0
Overall			4.0	112.6	C	C	45.9	45.1



# Average Travel Speeds And Levels Of Service 2015 Travel Time Delay Study

SOURCE(\$): Florida Department of Transportation Transportation Statistics Office; URS Consultants, Inc.

Figure 3



**LOS A (1)**

(+ Ramrod (8))

**LOS B (2)**

(+ Duck (15))

(+ Long (16))

**LOS C (4)**

(- Big Pine (10))

(- 7 Mile Bridge (12))

(+ U. Mate. (19))

(- Plantation (21))

**LOS D (1)**

(+ Tea Table (18))

**LOS E (0)**

Compared to last study year (2013) results, there are level of service changes to eight (8) segments – five (5) of which resulted in positive level of service changes and three (3) of which resulted in negative level of service changes.

- Ramrod segment (8) increased from LOS 'B' to LOS 'A'
- Duck segment (15) increased from LOS 'D' to LOS 'B'
- Long segment (16) increased from LOS 'C' to LOS 'B' - Village of Islamorada
- Big Pine segment (10) decreased from LOS 'B' to LOS 'C'
- 7-Mile Bridge segment (12) decreased from LOS 'B' to LOS 'C'
- Upper Matecumbe segment (19) increased from LOS 'D' to LOS 'C' - Village of Islamorada
- Plantation segment (21) decreased from LOS 'B' to LOS 'C'
- Tea Table segment (18) increased from LOS 'E' to LOS 'D' - Village of Islamorada

Compared to 2013, the median segment speeds increased in ten (10) of the 24 segments ranging between 0.1 mph to 2.3 mph. Fourteen (14) segments experienced a decrease in median speeds, ranging from -0.2 mph to -3.3 mph.

The largest difference and decrease in speed change was recorded on Segment # 20 (Windley - MM 84.0 to MM 86.0); however, the LOS remained the same at 'C'. The largest increase in speed (2.3 mph) was recorded on Segment # 15 (Duck – MM 60.5 to MM 63.0), which resulted in the LOS change from a 'D' to a 'B'. The removal of the temporary signal at the entrance to Hawks Cay to manage the Duck Key Bridge rehabilitation is the primary reason for this speed increase. The rehabilitation project (and the removal of the temporary signal) was completed in the fall of 2013.

Detailed summary tables of these measured travel speeds by day, segment, and fourteen-day average are contained in Appendix E.

**Delay**

A delay event occurs whenever the speed of the test vehicle fell below 5 mph. The delay event continues until the test vehicle's speed rose to 15 mph. During the study, the observers encountered a total of 243 separate delay events (a 48% increase compared to the 2013 study). Thirty two (32) of these delay events totaling 62 minutes and 52 seconds were excluded from the overall travel times and the segment travel times. The excluded delays were caused by nonrecurring events such as accidents and roadside construction.

A detailed listing of the specific sources of delay is included in Appendix H of this report. A summary of the delay data, compared to last year's data, is provided in Table 4. The mean delay per trip is the total delay recorded for a given source divided by the study's 28 one-way trips. The mean delay per trip is found to be 11 minutes and 12 seconds (a 5 minute and 11 second increase compared to the 2013 data).

**TABLE 4**  
**DELAY DATA SUMMARY AND COMPARISON**

Delay Source	Number of Events		Total Delay		Excluded Time		Mean Delay Per Event		Mean Delay Per Trip	
	2015	(2013)	2015	(2013)	2015	(2013)	2015	(2013)	2015	(2013)
Traffic Signals	152	141	02:19:44	01:33:06	00:00:00	00:00:00	0:55	0:40	4:59	3:20
Drawbridges	3	0	00:18:46	00:00:00	00:00:00	00:00:00	6:15	0:00	0:40	0:00
Congestion	40	7	01:28:16	00:12:41	00:00:00	00:00:00	2:12	1:49	3:09	0:27
Left Turns	12	2	00:03:15	00:00:15	00:00:00	00:00:00	0:16	0:08	0:07	0:01
Right Turns	4	0	00:00:53	00:00:00	00:00:00	00:00:00	0:13	0:00	0:02	0:00
School Bus	3	3	00:01:29	00:01:16	00:01:29	00:00:00	0:30	0:25	0:03	0:03
Construction	18	1	00:32:20	00:04:17	00:32:20	00:04:17	6:48	4:17	1:09	0:09
Accidents	8	4	00:24:57	00:53:33	00:24:57	00:53:33	3:07	13:23	0:53	1:55
Emergency Vehicles	3	0	00:04:06	00:00:00	00:04:06	00:00:00	1:22	0:00	0:09	0:00
Special Event	0	6	00:00:00	00:03:09	00:00:00	00:00:00	0:0	0:32	0:00	0:07
<b>Total</b>	<b>243</b>	<b>164</b>	<b>05:13:46</b>	<b>02:48:17</b>	<b>01:08:17</b>	<b>00:57:50</b>	<b>1:17</b>	<b>1:02</b>	<b>11:12</b>	<b>6:01</b>

### Signal Delays

The largest single recurring delay source along U.S. 1 in Monroe County is traffic signals. During the 2015 study, 152 (63%) out of 243 delay events were caused by signals. The number of traffic signal delay events in 2015 is 8% higher than the 2013 study. The signal delays accounted for 2 hour 19 minutes and 44 seconds (45% of total delays) versus 55% in 2013.

The mean delay per event for signals in Segments # 10, 21, 22 and 23 are higher than the LOS C threshold value of 25 seconds, which is the signal impact discounted in the methodology.

The signal on Big Pine segment (Segment # 10) at Key Deer Boulevard was the most significant, causing 14 signal delay events (same as in 2013) and accounting for 39 minutes and 15 seconds (28% of the total signal delays), which is 30 minutes and 30 seconds higher than the 2013 signal delays in this segment. The mean delay per event at the Key Deer Boulevard signal was higher than the 25 seconds threshold at 2 minutes and 48 seconds. The mean delay per trip was also higher than the 25 seconds threshold at 1 minute and 24 seconds.

### Accident Delay

The accident delays, although nonrecurring, were the second largest nonrecurring delay events during the 2015 study. There were 8 accident delays recorded during the 2015 study accounting for 24 minutes and 57 seconds. The accident delays accounted for 7.6% of the total delays. The accident delays were excluded from the overall and segment travel time.

### Turning Vehicles Delay

There were 12 left-turn and 4 right-turn delay events during this year's study. Left-turn delays accounted for 3 minutes and 15 seconds with a mean delay of 16 seconds. Similarly, right-turn delays accounted for 53 seconds with a mean delay of 13 seconds. In accordance with the Floating Car Method and Passing Score procedure, the test car did not pass on the right side of a left turning vehicle within two-lane segments during this year's study.

### Draw Bridge Delay

Since the reconstruction of the Jew Fish Creek Bridge, the bridge across the Snake Creek is the only bridge along the entire length of U.S. 1 in Monroe County that causes drawbridge delays. There were 3 drawbridge delays during the 2015 study, as compared to no drawbridge related delays during the 2013 travel time runs, totaling 18 minutes and 46 seconds.

### Congestion Delay

Congestion delays represent the second largest recurring delay events in this year's study. There were forty (40) congestion related delay events this year totaling 1 hour 28 minutes and 16 seconds. The congestion delay events contributed an average of 3 minutes and 9 seconds of delay per trip, which is higher than 2013 average congestion delay per trip of 27 seconds.

### Construction Delay

There were several work zones observed during this year's study. Construction delays represented the largest nonrecurring delay events. There were eighteen (18) construction delay events in this year's study, and they accounted for 32 minutes and 20 seconds. This is an increase from 2013 construction delays that accounted for 4 minutes and 17 seconds.

### Speed Limit

The posted speed limits affect both the segment and the overall LOS. For instance, a lower speed limit could benefit a segment's LOS by reducing the difference between the travel speed and the posted speed limit. The reduction in the speed limit; however, negatively impacts the overall LOS because motorists are expected to travel at reduced speeds to comply with the speed limits, whereas the overall LOS C threshold is set at 45 mph regardless of the speed limit changes. For these reasons, the posted speed limit is an important component in this study.

A large part of the traffic in Monroe County consists of tourist travelers, who generally tend to have a leisurely driving style. The traffic also tends to include a large number of recreational vehicles. Combined with some slow moving heavy vehicles, the travel speeds tend to go below the speed limits when there are no opportunities for faster moving vehicles to pass. Such impacts are evident on 15 of the 24 segments operating median travel speeds below the weighted average posted speed limits as presented in Appendix G; it is the same as the 2013 data, which also had 15 segments operating at median travel speeds below the speed limit.

### Reserve Capacities

The difference between the median speed and the LOS C Standard gives the reserve speed, which in turn can be converted to an estimated reserve capacity of additional traffic volume and corresponding additional development. The median overall speed of 45.1 mph compared to the LOS C standard of 45 mph leaves an overall reserve speed of 0.1 mph. This reserve speed is converted into an estimated number of reserve trips using the following formula:

$$\text{Reserve Volume} = \frac{\text{Reserve Speed} \times k \times \text{Overall Length}}{\text{Trip Length}}$$

$$\text{Reserve Volume} = \frac{0.1 \text{ mph} \times 1656 \text{ daily trips/mph} \times 112 \text{ miles}}{10 \text{ miles}}$$

$$\text{Reserve Volume} = 1,855 \text{ daily trips}$$



The estimated reserve capacity is then converted into an estimated capacity for additional residential development, assuming balanced growth of other land uses, and using the following formula:

$$\text{Residential Capacity} = \frac{\text{Reserve Volume}}{\text{Trip Generation Rate} \times \% \text{ Impact on U.S. 1}}$$

$$\text{Residential Capacity} = \frac{1,855 \text{ daily trips}}{8 \text{ (daily trips / unit)} \times 0.8}$$

$$\text{Residential Capacity} = 290 \text{ units}$$

Applying the formula for reserve volume to each of the 24 segments of U.S. 1 individually gives maximum reserve volumes for all segments totaling 91,147 trips. These individual reserve volumes may be unobtainable, due to the constraint imposed by the overall reserve volume.

County regulations and FDOT policy allow segments that fail to meet the LOS C standards to receive an allocation not to exceed five percent below the LOS C standard. The so-called five percent allocations were calculated for such segments as follows:

$$5\% \text{ Allocation} = \frac{(\text{median speed} - 95\% \text{ of LOS C}) \times 1656 \times \text{Length}}{\text{Trip Length}}$$

In 2015, there were 2 segments identified to be functioning below the LOS C threshold - L. Matecumbe (Segment # 17) and Tea Table (Segment # 18). Both of these segments are in the Village of Islamorada.

The two segments identified above have depleted their reserve capacities, leaving 967 trips in L. Matecumbe (Segment # 17) and 459 trips in Tea Table (Segment # 18) based on the 5% below LOS C allocation. A detailed summary table displaying level of service and reserve capacity values for each segment is contained in Appendix G.

## 7. SUMMARY

Following is a summary of the 2015 Travel Time and Delay Study results:

- a) The traffic volumes have increased by approximately 15% compared to 2013.
- b) The overall travel speed on U.S. 1 for 2015 is 45.1 mph, and 0.8 mph lower compared to the 2013 overall travel speed.
- c) Compared to 2013 data, the travel speeds on 10 of the 24 segments have increased. They are:

- Boca Chica (+1.0 mph)	- Marathon (+2.0 mph) - City of Marathon
- Big Coppitt (+0.7 mph)	- Grassy (+0.5 mph)
- Saddlebunch (+0.5 mph)	- Duck (+2.3 mph)
- Sugarloaf (+0.1 mph)	- Tavernier (+1.7 mph)
- Ramrod (+0.8 mph)	- Key Largo (+0.9 mph)

Travel speeds on 14 segments have decreased. They are:

- Stock Island (-0.2 mph)	- Long (-2.4 mph)
- Cudjoe (-1.0 mph)	- L. Matecumbe (-1.5 mph) - Village of Islamorada
- Summerland (-0.7 mph)	- Tea Table (-1.7 mph) - Village of Islamorada
- Torch (-0.4 mph)	- U Matecumbe (-1.7 mph) - Village of Islamorada
- Big Pine (-2.1 mph)	- Windley (-3.3 mph)
- Bahia Honda (-1.6 mph)	- Plantation (-2.7 mph)
- 7-Mile Bridge (-2.3 mph)	- Cross (-0.9 mph)

- d) Compared to 2013 study results, there are LOS changes in eight (8) of the 24 segments; 5 increases and 3 decreases.
- e) Segment # 17 (L Matecumbe – MM 73.0 – MM 77.5) has remained at level of service D for the past six years and the travel speeds have decreased this year compared to 2013. The adjacent segment - Segment # 18 (U Matecumbe – MM 77.5 – MM 79.5) has improved to level of service D; although, the travel speeds have decreased this year compared to 2013. The improvement in level of service (despite the decrease in speed) is due to a decrease on the weighted average posted speed, which affects the level of service thresholds. Special attention should be given to these segments.
- f) There were a total of 243 delay events, 32 of which were excluded due to their non-recurring nature. The delays due to traffic signals were the largest recurring delay-causing event this year. The traffic signals caused 152 delays, totaling 2 hours, 19 minutes and 44 seconds. The signals caused on average a 4 minutes and 59 seconds delay per trip, which is 1 minute and 39 seconds more compared to 2013.
- g) There were three (3) draw bridge related delays this year. Per established procedures, they were excluded from the individual segment calculation and included in the overall delay.
- h) The construction delays were the largest nonrecurring delay accounting for 32 minutes and 20 seconds. The construction delays were excluded from the overall and segment travel times.
- i) There were forty (40) congestion related delay events this year totaling 1 hour 28 minutes and 16 second compared to 12 minutes and 41 seconds in 2013. The congestion delay events contributed on average 3 minutes and 9 seconds of delay per trip, which is significantly higher when compared to the 2013 average congestion delay per trip of 27 seconds.

- j) Segments with reserve speeds of less than or equal to 3 mph should be given particular attention when approving development applications. This year, there are eight segments of U.S. 1 in this category (same number of segments as in the 2013 study).

- Saddlebunch ( MM 10.5 – MM 16.5)	- Tea Table (MM 77.5 – MM 79.5)
- Big Pine (MM 29.5 – MM 33.0)	- U. Matecumbe (MM 79.5 – MM 84.0)
- 7-Mile Bridge (MM 40.0 – MM 47.0)	- Windley (84.0 – 86.0)
- L. Matecumbe (MM 73.0 – MM 77.5)	- Plantation (86.0 – 91.5)

The 10-mile stretch of Long Key segment (from MM 63.0 to MM 73.0) has been removed this year to make a contiguous 18.5 mile segment of upper keys from L. Matecumbe (MM 73.0) to Plantation (MM 86.0) to be within the Area of Critical County Concern (ACCC). Within the Lower Keys, Saddlebunch (MM 10.5 – MM 16.5) and Big Pine (MM 29.5 – MM 33.0) segments are identified to be within the ACCC. The 7-Mile Bridge segment should be excluded due to temporary construction. Once construction is completed, the reserve speed is anticipated to improve from 2.4 mph to over 3.0 mph over the LOS C speed threshold.

Road widening is a typical capacity improvement remedy exercised by most municipalities. In Monroe County, however road widening, specifically along U.S. 1 is restricted by the adopted comprehensive plan policies to preserve and protect the fragile ecological conditions. There are other less intrusive remedies could be explored and evaluated to improve the traffic flow and the capacity of U.S. 1, they include:

- Identifying strategic locations to add turn lanes.
- Conducting speed studies on selected segment of U.S. 1 to confirm the posted speed limits, and correct, if necessary.
- Consolidating driveways/access points to reduce/minimize friction.
- Enhancing signal timing at existing signalized intersections along U.S. 1 to improve the traffic flow.
- Not allowing new signalized intersections along U.S. 1 if there is alternative safe access to accommodate the turning movements.
- Improving the conditions along the county maintained local streets to minimize U.S. 1 being used as the local street.

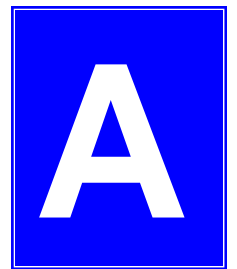
U.S. 1 is a state maintained roadway. Therefore, any modifications/ improvements to U.S. 1 have to be developed in collaboration with the Florida Department of Transportation.

# APPENDIX A

## Data Collection Methodology



# A P P E N D I X



**URS**



# **DATA COLLECTION METHODOLOGY**

## **(Previously Approved by Task Force)**

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### Calibration of the DMI

Prior to beginning the study, the DMI was calibrated over a half-mile course. The calibration procedure set-up by the DMI manufacturer established a calibration factor of 0.682 for the test vehicle, which resulted in measurements within 3 feet of the 5,280-foot distance (0.057%). At this level of accuracy, the DMI would measure the 108 mile distance of U.S. 1 between Stock Island and the Dade County line to within 325 feet, or to within 0.03 mile per hour (mph) of the 45 mph standard for LOS C.

### Floating Car Method and Passing Score

The study employed the floating car method, whereby under ideal conditions the test vehicle passes and is passed by an equal number of vehicles (i.e. "goes with the flow"). A passing score was recorded for each segment to document the extent to which this objective was accomplished. Positive scores indicate the number of excess vehicles the test car passed; negative scores indicate the number of excess vehicles that passed the test car; and zero indicates an even balance. The overall passing score consists of the sum of the segment scores.

The passing score provided an objective measure of the traffic flow, allowing the driver to adjust the test car speed accordingly. In the event that the traffic flow was higher than the posted speed limit, as was frequently the case in the Dade County and Boca Chica segments, the test car also traveled above the speed limit. Vehicles turning on or off U.S. 1 were omitted from the passing score.

Employing the floating car method in two-lane segments was fairly straightforward, where the observers frequently encountered platoons of sufficient size to discourage or prohibit passing. When positioned at the rear or in the middle of a platoon, the observers simply traveled with the pack. When positioned as the lead car, the observers avoided delaying the platoon yet kept the platoon within sight.

On two-lane segments the observers occasionally encountered stopped vehicles waiting to turn left, raising the question of whether the test vehicle should leave the lane or paved road surface and pass to the right of the stopped vehicle. When the vehicles ahead of the observers passed to the right of the stopped vehicle, then the observers did also. However, when the test car was the lead car in the platoon, the observers only passed on the right if they could do so without leaving the paved roadway.

Within four-lane segments with light congestion, the observers often encountered traffic traveling in the right lane at or below the posted speed limit, while there was little or no traffic in the left lane. Rather than "floating" below the speed limit in the right lane or traveling at the maximum possible speed in the left lane, the observers traveled at the posted speed limit, which resulted in passing score as high as +10. Thus, in these cases, a passing score of zero is undesirable, since the corresponding speed would fail to reflect the availability of the vacant passing lane.

Within four-lane segments with moderate or heavy congestion, the observers often encountered separate platoons in the right and left lanes, with the left lane typically moving at a faster speed. Rather than continuously changing lanes to achieve a passing score of zero, the test car "floated" in the faster of the two platoons, which also yielded high passing scores.

### Platoon Size

To provide a measure of roadway congestion within each segment, the average number of vehicles traveling in the test car's platoon was recorded, including the test car itself. Within four-lane segments, this number represents the average number of vehicles that traveled in the test car's platoon within the test car's lane.

### Treatment of Delay

In accordance with the FDOT Manual on Uniform Traffic Studies, the observers began recording delay when the test car's speed fell to 5 mph and terminated the delay event when the test car's speed rose to 15 mph. Each delay entry was identified, in the DMI memory by a sequential code number. The observers recorded the type and location of the delay on a field data sheet.

When computing both segments and overall travel times, delays due to typical events such as turning movements, traffic signals, and certain types of congestion were included. Unusual or non-recurring delays, such as construction, accidents, school bus, and emergency vehicles were excluded. Delays due to drawbridge opening were excluded from the segment travel times, but included in the overall travel times. However, regardless of how a particular type of delay was treated in the analysis, all delays of all types were identified and recorded on the field data sheets.

Occasionally an external event slowed traffic speeds, but not enough to meet the 5 mph criteria for a formal delay. Highway construction and maintenance activities were the most common example of this borderline situation. The decision of whether to record these events was made on a case-by-case basis in the field. As long as the observers were traveling at speeds within 5 to 10 mph of the posted speed limit and the event occurred over a distance of about a mile or less, the event was not recorded. However, if the activity caused speeds slower than this or when the observers witnessed active interference, such as bulldozers or flagman blocking the traffic, the event was recorded and later excluded from the analysis.

**A METHODOLOGY TO ASSESS LEVEL-OF-SERVICE  
ON US-1 IN THE FLORIDA KEYS**

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January 1993**

## **ABSTRACT**

**This paper presents the methodology developed to assess level-of-service (LOS) on US-1 in the Florida Keys. Although predominantly an uninterrupted flow two-lane roadway in the Keys, US-1's uniqueness warrants all alternative LOS evaluation process to that found in the 1985 Highway Capacity Manual.**

**U.S.-1 extends from the Key West to the Florida mainland with no major roads intersecting it. Furthermore, no other principal arterial serves the Keys or the Keys' resident and tourist population, over 100,000. Its unique geography, land use patterns, trip making characteristics presented a challenge in developing and applying a reasonable and acceptable method to assess its LOS.**

**A uniform method was developed to assess LOS on U.S.-1 to cover both its overall arterial length from Key West to the Florida mainland, and 24 roadway segments delineated. The methodology employs average travel speed as the main measure of effectiveness. It was developed from basic criteria and principles contained in Chapters 7 (Rural Multilane Highways), 8 (Rural Two-Lane Highways) and 11 (Urban and Suburban Arterials) of the 1985 Highway Capacity Manual.**

**The results of the study correlate well with perceived operating conditions on US-1 and over a two-year period the methodology appears to have a good level of reliability. The authors recommend that for uninterrupted flow conditions in developed areas, Chapters 7 and 8 of the Highway Capacity Manual incorporates average travel speed as the main measure of effectiveness to determine LOS.**

## **A METHOD TO ASSESS LEVEL-OF-SERVICE ON US-1 IN THE FLORIDA KEYS**

### **INTRODUCTION**

The purpose of this paper is to present the methodology developed by the Monroe County US-1 level-of-service (LOS) Task Force to assess LOS on US-1 (the Overseas Highway) in the Florida Keys (1). The authors are members of the referenced task force.

US-1 which is mostly two-lanes, has unique geographic and trip characteristics. It extends through the Florida Keys covering approximately 180 kilometers (112 miles) from the City of Key West to the Florida mainland (Figure 1). There are 48 bridges crossing water for a total length of 35 km (22 mi), with the longest bridge approximately 11 km (7 mi) long. There is no other road, to provide vehicular access to the Florida Keys from the rest of Florida or anywhere else. Few local roads are 5 km (3 mi) in length. Consequently, US-1 serves not only as a regional principal arterial which serves intra as well as interstate travel, but also serves as the local road for most of the trips within the Keys. US-1 Annual average daily traffic (AADT) volumes range from a low of 4700 to a high of 34200. The road serves a large tourist demand and is one of the most scenic in the United States. The linear geography with the narrow land width of most of the Florida Keys are further characteristics.

Most of the surrounding land use is rural developed and suburban in nature; however, some areas are totally rural and others are urban, such as the Key West and its suburbs. With the exception of the few completely rural segments and the bridges, strip commercial stores, motels and restaurants are very common throughout the Keys along US-1. Numerous driveways and intersecting local roads provide access to the surrounding residential areas.

The US-1 LOS study encompassed approximately 174 km (108 mi) of US-1 from Key West/Stock Island to the Monroe/Dade County Line, broken down as follows:

- 129 km (80 mi) (74%) two-lane uninterrupted flow;
- 32 km (20 mi) (19 %) four-lane uninterrupted flow; and
- 13 km (8 mi) (7%) four-lane urban/suburban interrupted flow.

Part of the growth management process in Florida is to assess roadway LOS to determine if roadway facilities meet standards established by state regulations. The Transportation Research Board Special Report 209 Highway Capacity Manual (HCM) (2) is extensively used throughout Florida as the source document to determine highway capacities and LOS.

HCM Chapter 7 (Rural Multilane Highways), 8 (Rural Two-Lane Highways) and 11 (Urban and Suburban Arterials) were consulted to determine applicability to the unique conditions and vehicular traffic operations and characteristics of the Florida Keys. Only the 13 km (8 mi) of urban/suburban interrupted flow and the small percentage of the two-lane truly rural portions correlate directly to the HCM Chapters 11 and 8.

Thus, the challenge was to develop a methodology to assess arterial LOS along US-1 without deviating from the principles of the HCM. Towards that end a task force was created consisting of representatives from State and local agencies and an engineering consulting firm.

## **THE NEED TO DEVELOP A LOS MEASUREMENT METHOD**

From a state transportation perspective, the overall operating condition of US-1 is important, not the condition of any smaller segment. With Key West as a major tourist destination at the southern end of the Keys and no alternative routes, the logical analysis section of highway extends from Key West to the mainland. From local transportation and development approval perspectives, shorter segments for analysis are desirable.

Chapter 8 of the HCM presents a methodology which applies to typical rural two-lane highways with basically long stretches of roads, and few side intersecting streets and driveways directly connecting to the roads. Chapter 8 methodology relies mainly on "percent time delay" to assess LOS. The HCM further states that "Percent time delay...is defined as the average percent of time that all vehicles are delayed while traveling in platoons due to inability to pass. Percent time delay is difficult to measure directly in the field. The percent of vehicles traveling at headways less than 5 seconds can be used as a surrogate measure in field studies."

Chapter 8 of the HCM also uses average travel speed and capacity utilization as additional measures of effectiveness to assess LOS. However, the HCM states clearly that percent time delay is the primary measure of service quality. Further inspection of the average speeds for level terrain depicted by Table 8-1 of the HCM do not correspond well with the typical operating speeds of US-1 in the Florida Keys. For instance, Table 8-1 shows average speeds ranging from 58 mph (93 kmh) (LOS A) to 45 mph (72 kmh) (LOS D).

The overall weighted posted speed limit for US-1 in the Florida Keys is 79.7 kmh (49.5 mph). The overall median operating speeds along US-1 according to the 1991 and 1992 field studies (3, 4 ) were 76.8 and 75.5 kmh (47.7 and 46.9 mph), respectively. The field studies showed, for the most part, the survey vehicle(s) was traveling close to the posted speed limit.

It is believed the average motorist in the Florida Keys is mostly concerned with operating at an acceptable average travel speed rather than being concerned about the ability to pass. This is supported by the physical and traffic characteristics of the Keys (e.g., adjacent land development, sight seeing tourists), local knowledge, and discussions with motorists.

From the above statements, it was clear to the task team that HCM Chapter 8 methodology could not be applied to US-1 for analysis of its two-lane sections.

With regards to the four-lane uninterrupted flow portions of US-1, a similar dilemma occurred. HCM Chapter 7 methodology applies to multi-lane highways with operating characteristics generally unlike those of US-1 through the Florida Keys. For instance, average travel speeds depicted by Table 7-1 of the HCM are also higher than those encountered in the Keys. Further, the methodology inherent in equations (7-1), (7-2) and (7-3) are closely related to those of freeways with their higher service flow rates, which again neither simulate nor resemble those of US-1 in the Keys. The Four-lane portion is found mostly in Key Largo (the northeastern end of the Keys) which has a weighted posted speed limit of 72.5 kmh (45 mph). Key largo is developed with strip commercial and residential development. It has numerous driveway connections and side streets directly accessing US-1.

The remaining 7% of the total US-1 mileage is four-lane interrupted flow. These are the portions encompassing Marathon (in the middle of the Keys) and Stock Island (near Key West). The operating characteristics here are truly urban/suburban and interrupted flow in nature resembling those of HCM Chapter 11. Thus, the methodology of Chapter 11 was employed in assessing LOS on these segments.

From the preceding discussion, it was evident that a distinct method to assess LOS on US-1 had to be developed. The task team's efforts concentrated on keeping consistency with the basic philosophy of the HCM, and yet be sensitive to the Keys uniqueness. Thus, the proposed methodology correlates measured travel speeds along US-1 with LOS speed thresholds developed as part of this study. This is in line with the concept behind the HCM of average travel speed being the main parameter to measure arterial LOS.



## **METHODOLOGY**

Considering the types of trips served by US-1, it was decided to conduct travel time and delay runs to cover both the entire length of US-1 from Key West to the Monroe/Dade County Line (mainland) and for each segment of the highway along the way. Twenty-four segments were selected as depicted by Table 1. Each segment is fairly homogeneous in nature having a uniform roadway cross section and traffic flow.

Travel speeds for the overall length (from Key West to the mainland) provide an indication of the LOS for the regional trips. Travel speeds for each segment also provides an opportunity to assess the impact of local trips. Establishing speed criteria for both the overall length and for each roadway segment satisfies the requirements of the Florida growth management process.

The next step in the process was to determine the number of travel time runs and how, when and to/from where. Runs were started at both ends of US-1. For example, one run started on Stock Island (Key West City limits) and proceeded to the mainland (Dade County). After reaching this point, the vehicle turned back and proceeded to end the run where it started, on Stock Island. On another day the reverse was true (i.e., the run started in Dade County instead of Stock Island). It was decided to perform a total of fourteen two-way runs or twenty-eight in each direction covering the 174 km (108 mi) study portion of US-1. Twenty-eight runs provide enough data for statistical significance. Control points were established at each of the 24 segments to record travel time and speed data specific to each one of those segments. Seven runs were started at Stock Island and seven in Dade County. Each began at staggered hours to cover the varied trip purposes and time frames within the Keys. The surveys were conducted during March, reflecting the area's peak traffic season.

For each run the process provided data, such as running speed and travel speed, in each direction of US-1. Vehicular traffic counts were also collected at three locations covering seven days.

The travel time runs yielded a total of 28 one-way travel speed values for the overall length of US-1 and for each of the 24 segments. The value selected for analysis was the median speed which would reflect a "typical peak period during the peak season." In other developed parts of Florida the typical peak hour of the peak season approximates the 100th highest hour of the year (5).

The median value was also selected, instead of the average, to avoid the influence of extremely high or low speed value at either end of the survey population.

The process up to this point provided median travel speeds. The question then became, what LOS do these speeds represent.

The next step was to develop a set of LOS/Speed threshold values for both the overall length of US-1 and the pertinent segments of the highway. Towards this end, the speed ratios between LOS thresholds from Tables 7-1, 8-1 and 11-1 of the HCM were used in the analysis. These ratios were weighted against actual mileage of US-1 in the Florida Keys to represent the prevailing type of flow; two-lane uninterrupted flow, four-lane uninterrupted flow and four-lane interrupted flow. For example, from the level terrain portion of HCM Table 8-1, the ratio between LOS B speed and LOS A speed is  $55/58 = 0.948$ . The ratio between LOS C/LOS A =  $52/58 = 0.897$ ; the ratio between LOS D/LOS A =  $50/58 = 0.862$  and so on. The same process was applied to Tables 7-1 (96.6 kmh) (60 mph) and 11-1. Then each ratio was weighted to take into account the length of the section of US-1 to which that type of traffic flow applied. Once all the ratios were developed, the weight criteria was applied as in the following example:

---

TYPE OF FLOW	LOS C/LOS A RATIO	WEIGHT
Two-lane uninterrupted	$52/58 = 0.897$	74
Four-lane uninterrupted	$44/50 = 0.880$	19
Four-lane interrupted	$22/35 = 0.629$	07

---

Therefore, the overall speed ratio between LOS C and LOS A is:

$$[74(0.897)+19(0.880)+7(0.629)]+100=0.875$$

The above process was applied to develop all the required ratios.

Further observations with reference to Tables 8-1, 7-1 and 11-1 yielded the following. From Table 8-1 the difference between LOS A and LOS B speeds is 4.8 kmh (3 mph), or 4.8 kmh (3 mph) above an assumed posted speed limit of 88 kmh (55 mph). From Tables 7-1 and 11-1 the differences are 3.2 kmh and 11.3 kmh (2 mph and 7 mph), respectively, with LOS lower than assumed speed limits. Therefore, from these observations plus local knowledge, it was determined that the overall US-1 posted speed limit is 79.7 kmh (49.5 mph) reasonably fell between the LOS A and B thresholds. This

assumption is not far away from the premise that if a vehicle is able to sustain a travel speed equal to the posted speed limit, then it will correspond typically with the upper ranges of LOS (i.e., LOS A or B).

With the above speed differentials and LOS range premise in mind, the US-1 overall speed thresholds for LOS A and B became 82.1 kmh (51 mph) (2.4 kmh (1.5 mph) above 79.7 kmh (49.5) and 77.3 kmh (48 mph), respectively. Applying the developed ratio between LOS C/LOS A to the LOS A speed resulted in 72.5 kmh (45 mph), rounded off (i.e.,  $0.875 \times 82.1 \text{ kmh (51 mph)} = 71.8 \text{ kmh (44.6 mph)}$ ), which then became the threshold for LOS C. After applying all the ratios the overall LOS criteria for US-1 became:

---

<u>LOS</u>	<u>Speed</u>
A	≥ 82 kmh (51 mph)
B	≥ 77 kmh (48 mph)
C	≥ 72 kmh (45 mph)
D	≥ 68 kmh (42 mph)
E	≥ 58 kmh (36 mph)
F	< 58 kmh (36 mph)

---

Inspection of the criteria above indicates a close relationship with the speed differentials of both Tables 8-1 and 7-1 of the HCM. Comparing the median speed data for US-1 from the 1991 and 1992 field studies to the above criteria resulted in an overall LOS of C for both years, i.e., 76.8 kmh (47.7 mph) for 1991 and 75.5 kmh (46.9 mph) for 1992. These speeds are 2.9 kmh (1.8 mph) and 4.2 kmh (2.6 mph) below the overall weighted 79.7 kmh (49.5 mph) speed limit, which would correspond to the upper range of LOS C. The authors also believe that LOS C is the appropriate LOS designation for the whole of US-1 from Key West to the mainland.

A final step was still needed to complete the task of developing LOS/Speed threshold values for the segments of US-1. No further work was needed to cover the 7% mileage of the interrupted portions of US-1 found on Marathon and Stock Island, adjacent to Key West. As discussed earlier, these segments correlate with Chapter 11 of the HCM. Therefore, direct application of Table 11-1 LOS/speed criteria for a Class I arterial was made.

The remaining segments fell within the two-lane and four lane uninterrupted flow criteria. It was decided to make LOS A speed criterion 2.4 kmh (1.5 mph) above the weighted posted speed limit in order to keep consistency with the overall criteria. LOS C speed was set 9.7 kmh (6 mph) below LOS A speed consistent with Tables 7-1 and 8-1 of the HCM. LOS B and D speed criteria were set to provide equal increments between LOS A and LOS D (i.e., LOS B 4.8 kmh (3 mph) below LOS A speed and LOS D 4.8 kmh (3 mph) below LOS C speed). LOS E was set 9.7 kmh (6 mph) below the LOS D Speed. This makes the segmental speed differential between LOS thresholds consistent with the differentials in the overall criteria, except for one consideration. On any segment, intersection delay would be deducted from the segment's travel time to account for the influence of that signal on the segment (i.e., signal delay =  $1.0 \times 15$  seconds average stopped delay). This corresponds to an LOS C delay due to isolated signals. LOS C delay was chosen because LOS C is the state LOS standard for US-1 in the Florida Keys. The rationale behind deducting signal delay from the segment analysis was to recognize for the impact of signals in reducing travel time. This provides the required sensitivity in the segment which is not only to assess the impact of regional vehicular trips, but also those that are local in nature. The following illustrates the concept plus one example for the US-1 Segmental LOS/speed relationship.

- The uninterrupted flow segment criteria are:

---

<u>LOS</u>	<u>SPEED</u>
------------	--------------

A	≥ 2.4 kmh (1.5 mph) above the posted speed limit
B	≥ 4.8 kmh (3.0 mph) below LOS A
C	≥ 9.7 kmh (6.0 mph) below LOS A
D	≥ 14.5 kmh (9.0 mph) below LOS A
E	≥ 24 kmh (15.0 mph) below LOS A
F	< 24 kmh (15.0 mph) below LOS A

- A segment having a weighted posted speed limit of 72 kmh (45 mph) would then have this criteria:

---

<u>LOS</u>	<u>SPEED</u>
------------	--------------

A	≥ 74.9 kmh (46.5 mph)
B	≥ 70.0 kmh (43.5 mph)
C	≥ 65.2 kmh (40.5 mph)
D	≥ 60.4 kmh (37.5 mph)
E	≥ 50.7 kmh (31.5 mph)
F	< 50.7 kmh (31.5 mph)

- The LOS/Speed criteria for interrupted flow segments (marathon and Stock Island) are based directly on a Class I arterial from Table 11-1 of the HCM.

---

<u>LOS</u>	<u>SPEED</u>
A	≥ 56.4 kmh (35 mph)
B	≥ 45.1 kmh (28 mph)
C	≥ 35.4 kmh (22 mph)
D	≥ 27.4 kmh (17 mph)
E	≥ 20.9 kmh (13 mph)
F	< 20.9 kmh (13 mph)

---

Speed data from both the overall length of US-1 and the individual segments were compared against the applicable LOS/speed thresholds. This provided for an assessment of the facility LOS plus an indication of reserve speed, if any.

Under Florida's and Monroe County's growth management process if the overall LOS for US-1 fell below the LOS C standard, then no additional land development would be allowed to proceed in the Florida Keys. Unless the proposed new development traffic impact were mitigated. If the overall LOS for US-1 was C or better, then additional development could take place in those segments where there was reserve speed available (i.e., segment's speed was higher than the standard threshold).

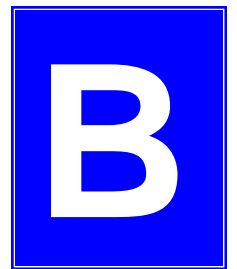
Besides meeting highway LOS standards there are numerous other considerations in Florida's growth management process pertaining to the Florida Keys that are beyond the scope of this paper. As mentioned in the introduction, the purpose of this study was to present the methodology to assess LOS on US-1.

# APPENDIX B

## Travel Time Delay Data



# A P P E N D I X



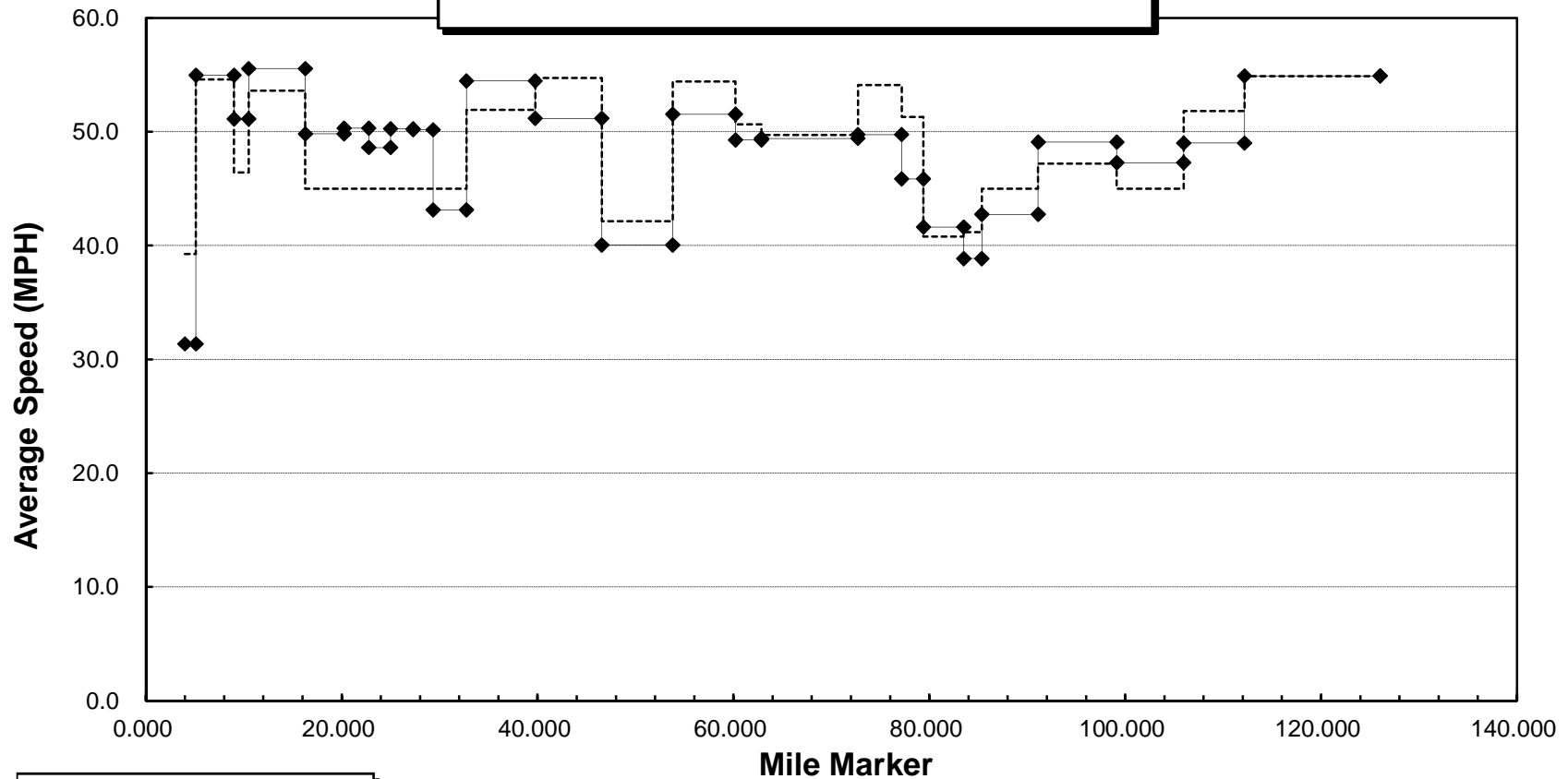
**URS**

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Sunday, March 1, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ COW KEY BR:	03:30:00 PM		DB = Drawbridge
FINISH TIME @ C SOUND RD:	06:03:24 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:02:08	00:02:08		1.115	1.115		31.4	10+	TS	0:00:21	
Rockland Dr	2	00:06:23	00:04:15		5.007	3.892		54.9				
Boca Chica Rd	3	00:08:09	00:01:46		6.512	1.505		51.1				
Harris Ch Br (N)	4	00:14:23	00:06:14		12.282	5.770		55.5				
Bow Channel Br (N)	5	00:19:10	00:04:47		16.253	3.971		49.8				
Spanish Main Dr	6	00:22:11	00:03:01		18.782	2.529		50.3				
E Shore Dr	7	00:24:55	00:02:44		20.996	2.214		48.6				
Torch-Ramrod Br (S)	8	00:27:40	00:02:45		23.299	2.303		50.2				
N Pine Ch Br (N)	9	00:30:07	00:02:27		25.348	2.049		50.2				
Long Beach Dr	10	00:34:51	00:04:44		28.750	3.402		43.1				
7-Mile Br (S)	11	00:42:35	00:07:44		35.769	7.019		54.5				
7-Mile Br (N)	12	00:50:33	00:07:58		42.562	6.793		51.2				
Coco Plum Dr	13	01:01:25	00:10:52		49.815	7.253		40.0	10+			9
Toms Harbor Ch Br (S)	14	01:08:52	00:07:27		56.213	6.398		51.5	9	TS(2)	00:01:09	
Long Key Br (S)	15	01:12:05	00:03:13		58.855	2.642		49.3				
Channel #2 Br (N)	16	01:24:03	00:11:58		68.710	9.855		49.4				
Lignum V Br (S)	17	01:29:26	00:05:23		73.173	4.463		49.7	10+			
Teatable Relf Br (N)	18	01:32:21	00:02:55		75.402	2.229		45.9				
Whale Harbor Br (S)	19	01:38:16	00:05:55		79.505	4.103		41.6	10+			
Snake Creek Br (N)	20	01:41:09	00:02:53		81.372	1.867		38.9	10+			
Ocean Blvd	21	01:49:12	00:08:03		87.105	5.733		42.7	10+			6
Atlantic Blvd	22	01:59:01	00:09:49		95.135	8.030		49.1	10+	TS	00:00:13	1
C-905	23	02:07:41	00:08:40		101.962	6.827		47.3				5
County Line sign	24	02:18:16	00:10:35	00:04:40	108.178	6.216	1.383	49.0		AC	00:04:40	
Card Sound Rd	25	02:33:24	00:15:08		122.028	13.850		54.9				2
OVERALL		-----	02:18:16	00:04:40	-----	108.178	1.383	48.0			00:06:23	23

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
SUNDAY, 03-01-15, 15:30 TO 18:05**



FILE:030213.XLS

—◆— SEG. SPEED

----- AVG. POSTED SPEED

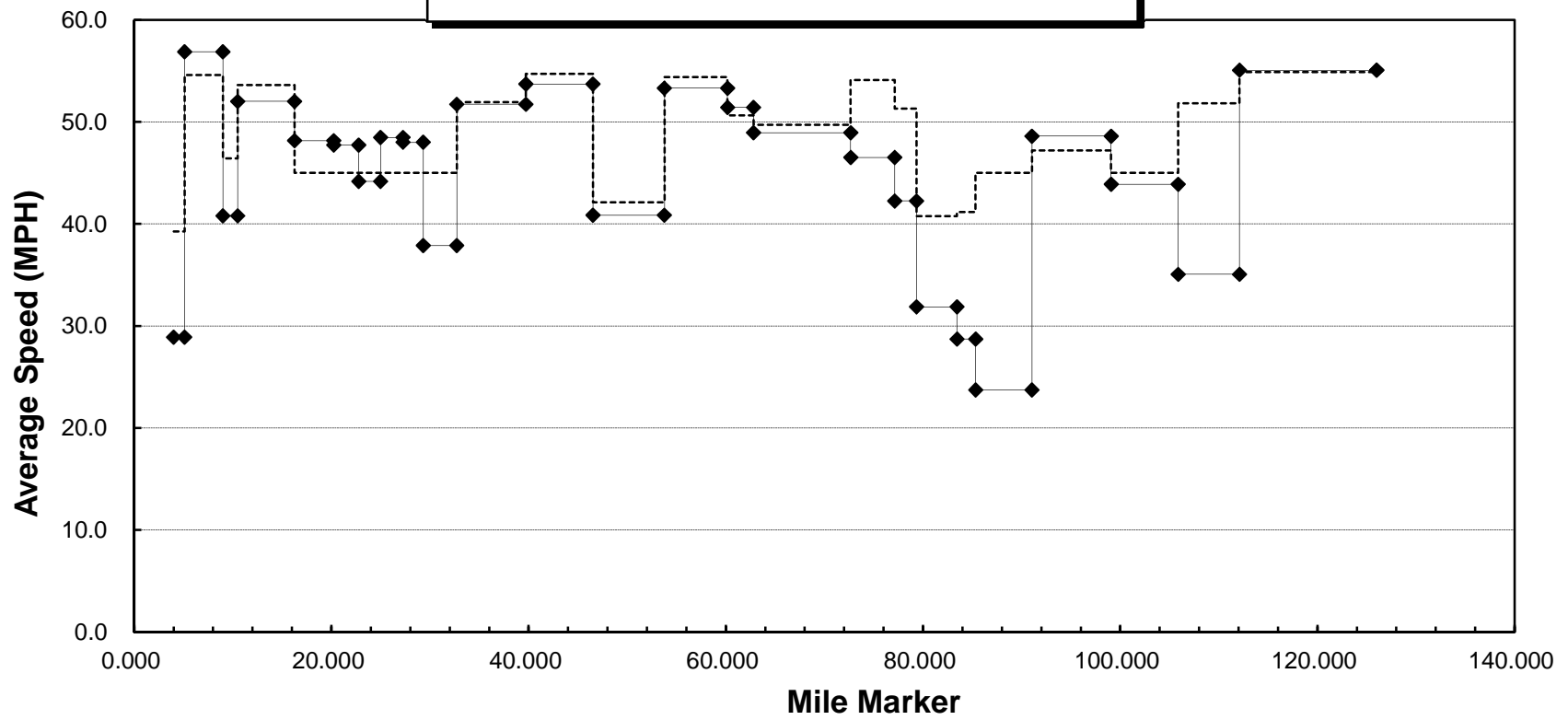


ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Sunday, March 1, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ C SOUND RD:	11:15:00 AM		DB = Drawbridge
FINISH TIME @ COW KEY BR:	02:30:40 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:15:10	00:15:10		13.918	13.918		55.1				
C-905	24	00:25:49	00:10:39		20.141	6.223		35.1	10+	CG(3)	00:03:05	
Atlantic Blvd	23	00:35:07	00:09:18		26.943	6.802		43.9	10+	TS	00:00:15	10
Ocean Blvd	22	00:45:01	00:09:54		34.963	8.020		48.6				14
Snake Creek Br (N)	21	00:59:31	00:14:30		40.699	5.736		23.7	10+	CG(3)	00:06:49	2
Whale Harbor Br (S)	20	01:03:31	00:04:00		42.574	1.875		28.1	10+	CG	00:00:32	
Teatable Relf Br (N)	19	01:11:14	00:07:43	00:00:09	46.672	4.098	0.033	32.2	10+	CS	00:00:09	
Lignum V Br (S)	18	01:14:24	00:03:10		48.902	2.230		42.3	10+			1
Channel #2 Br (N)	17	01:20:09	00:05:45		53.359	4.457		46.5	2			
Long Key Br (S)	16	01:32:14	00:12:05		63.215	9.856		48.9	10+			
Toms Harbor Ch Br (S)	15	01:35:19	00:03:05		65.857	2.642		51.4				
Coco Plum Dr	14	01:42:30	00:07:11		72.239	6.382		53.3				-2
7-Mile Br (N)	13	01:53:10	00:10:40		79.501	7.262		40.8	10+	TS	00:00:22	4
7-Mile Br (S)	12	02:00:45	00:07:35		86.289	6.788		53.7	10+			
Long Beach Dr	11	02:08:53	00:08:08		93.300	7.011		51.7	10+			
N Pine Ch Br (N)	10	02:14:16	00:05:23		96.698	3.398		37.9	10+	TS	00:00:16	1
Torch-Ramrod Br (S)	9	02:16:50	00:02:34		98.751	2.053		48.0				
E Shore Dr	8	02:19:40	00:02:50		101.040	2.289		48.5				
Spanish Main Dr	7	02:22:41	00:03:01		103.261	2.221		44.2	10+			
Bow Channel Br (N)	6	02:25:52	00:03:11		105.794	2.533		47.7				
Harris Ch Br (N)	5	02:30:48	00:04:56		109.754	3.960		48.2	10+			
Boca Chica Rd	4	02:37:27	00:06:39		115.519	5.765		52.0				
Rockland Dr	3	02:39:40	00:02:13		117.026	1.507		40.8	10+			
Key Haven Blvd	2	02:43:46	00:04:06		120.912	3.886		56.9				2
Cow Key Bridge (N)	1	02:46:04	00:02:18		122.020	1.108		28.9		TS	00:00:37	
OVERALL		-----	02:30:54	00:00:09	-----	108.102	0.033	43.0			00:12:05	32

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
SUNDAY, 03-01-15, 11:15 TO 14:30**



FILE:030213.XLS

—◆— SEG. SPEED

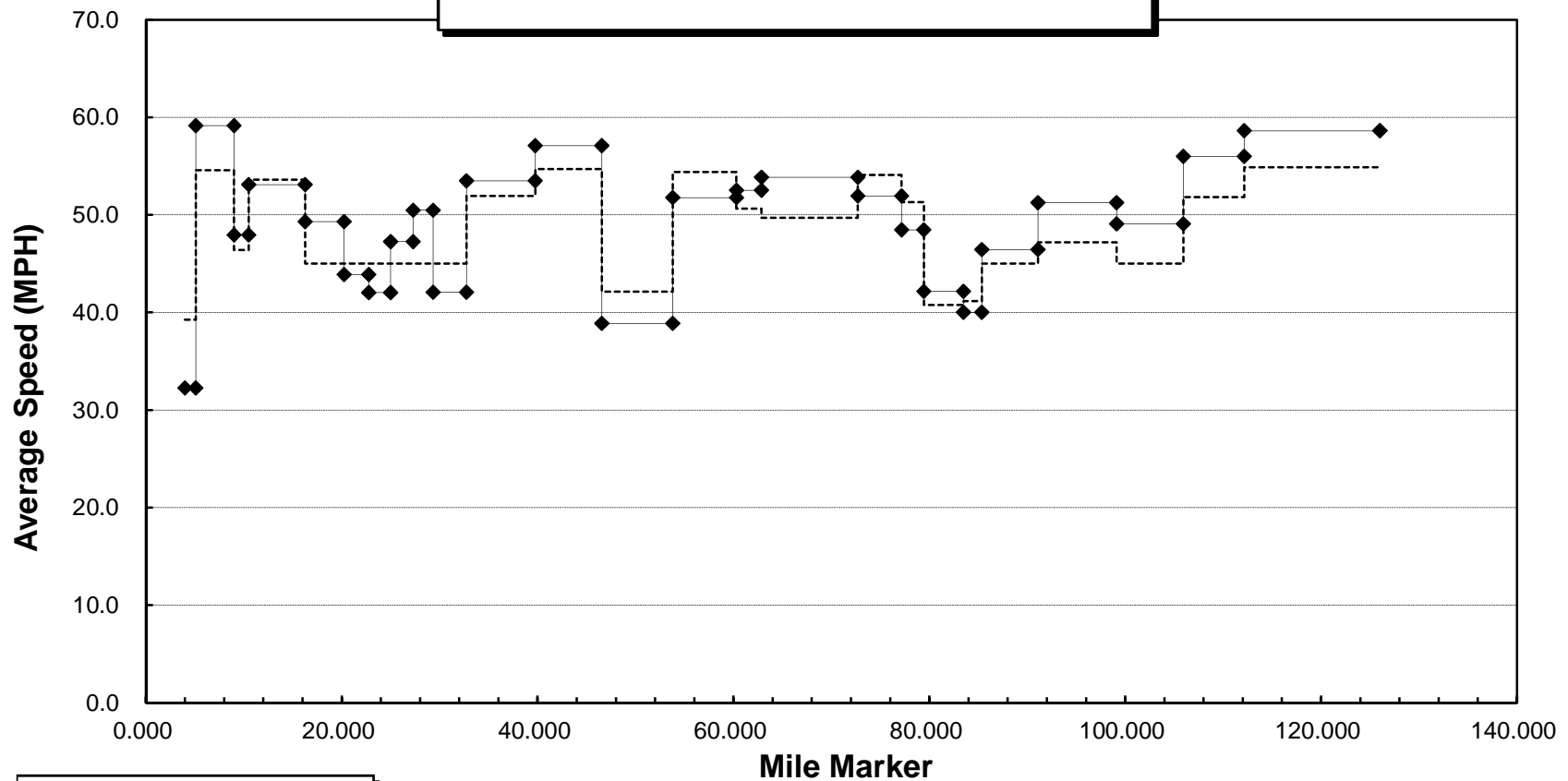
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Monday, March 2, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ COW KEY BR:	04:00:00 PM		DB = Drawbridge
FINISH TIME @ C SOUND RD:	06:26:13 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:02:04	00:02:04		1.111	1.111		32.3	3	TS	00:00:27	3
Rockland Dr	2	00:06:01	00:03:57		5.005	3.894		59.1				-3
Boca Chica Rd	3	00:07:54	00:01:53		6.510	1.505		47.9				
Harris Ch Br (N)	4	00:14:25	00:06:31		12.278	5.768		53.1				
Bow Channel Br (N)	5	00:19:14	00:04:49		16.236	3.958		49.3				
Spanish Main Dr	6	00:22:42	00:03:28		18.772	2.536		43.9	10+			
E Shore Dr	7	00:25:52	00:03:10		20.991	2.219		42.0				
Torch-Ramrod Br (S)	8	00:28:47	00:02:55		23.289	2.298		47.3				
N Pine Ch Br (N)	9	00:31:13	00:02:26		25.336	2.047		50.5				
Long Beach Dr	10	00:36:04	00:04:51		28.737	3.401		42.1	5	TS	00:00:08	2
7-Mile Br (S)	11	00:43:57	00:07:53		35.765	7.028		53.5				1
7-Mile Br (N)	12	00:51:05	00:07:08		42.552	6.787		57.1				
Coco Plum Dr	13	01:02:16	00:11:11		49.796	7.244		38.9	10+	TS	00:00:47	21
Toms Harbor Ch Br (S)	14	01:09:48	00:07:32		56.296	6.500		51.8	3			
Long Key Br (S)	15	01:12:43	00:02:55		58.849	2.553		52.5				
Channel #2 Br (N)	16	01:23:41	00:10:58		68.692	9.843		53.9				
Lignum V Br (S)	17	01:28:51	00:05:10		73.165	4.473		51.9	10+			
Teatable Relf Br (N)	18	01:31:40	00:02:49		75.440	2.275		48.5	10+			
Whale Harbor Br (S)	19	01:37:26	00:05:46		79.493	4.053		42.2	10+			
Snake Creek Br (N)	20	01:40:14	00:02:48		81.360	1.867		40.0	9			
Ocean Blvd	21	01:47:38	00:07:24		87.088	5.728		46.4	10+	TS	00:00:23	
Atlantic Blvd	22	01:57:02	00:09:24		95.118	8.030		51.3				11
C-905	23	02:05:23	00:08:21		101.949	6.831		49.1				9
County Line sign	24	02:12:02	00:06:39		108.156	6.207		56.0				
Card Sound Rd	25	02:26:13	00:14:11		122.012	13.856		58.6				
OVERALL		-----	02:12:02	00:00:00	-----	108.156	0.000	49.1			00:01:45	44

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
MONDAY, 03-02-15, 16:00 TO 18:30**



FILE:030213.XLS

—◆— SEG. SPEED

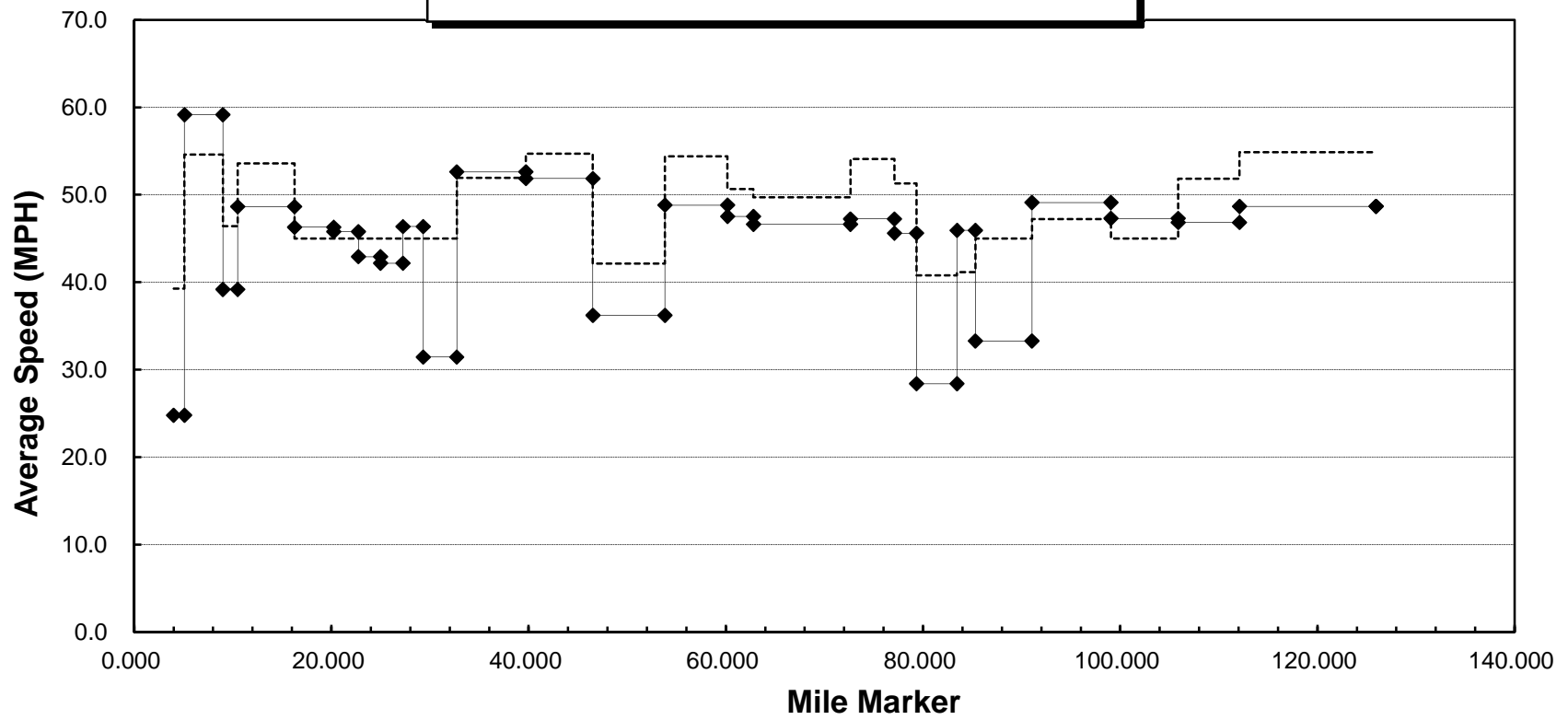
----- AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Monday, March 2, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ C SOUND RD:	11:45:00 AM		DB = Drawbridge
FINISH TIME @ COW KEY BR:	02:30:40 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:17:04	00:17:04		13.846	13.846		48.7				
C-905	24	00:25:02	00:07:58		20.065	6.219		46.8	10+			
Atlantic Blvd	23	00:33:40	00:08:38		26.869	6.804		47.3	10+			8
Ocean Blvd	22	00:43:28	00:09:48		34.891	8.022		49.1				17
Snake Creek Br (N)	21	00:53:48	00:10:20		40.621	5.730		33.3	10+	CG(2)	00:01:49	-3
Whale Harbor Br (S)	20	00:56:40	00:02:52		42.497	1.876		39.3				
Teatable Relf Br (N)	19	01:05:19	00:08:39	00:00:36	46.590	4.093	0.141	29.5	10+	CG,CS	00:02:21	
Lignum V Br (S)	18	01:08:15	00:02:56		48.819	2.229		45.6				
Channel #2 Br (N)	17	01:13:55	00:05:40		53.280	4.461		47.2				
Long Key Br (S)	16	01:26:36	00:12:41		63.130	9.850		46.6	10+			
Toms Harbor Ch Br (S)	15	01:29:56	00:03:20		65.770	2.640		47.5				
Coco Plum Dr	14	01:37:44	00:07:48		72.115	6.345		48.8	10+			
7-Mile Br (N)	13	01:49:50	00:12:06		79.417	7.302		36.2	6	TS	00:00:32	23
7-Mile Br (S)	12	01:57:41	00:07:51		86.203	6.786		51.9				
Long Beach Dr	11	02:05:41	00:08:00		93.218	7.015		52.6				1
N Pine Ch Br (N)	10	02:12:10	00:06:29		96.615	3.397		31.4	10+	TS	00:01:17	
Torch-Ramrod Br (S)	9	02:14:49	00:02:39		98.663	2.048		46.4				
E Shore Dr	8	02:18:05	00:03:16		100.958	2.295		42.2	10+			
Spanish Main Dr	7	02:21:11	00:03:06		103.175	2.217		42.9				
Bow Channel Br (N)	6	02:24:30	00:03:19		105.706	2.531		45.8				
Harris Ch Br (N)	5	02:29:38	00:05:08		109.667	3.961		46.3				
Boca Chica Rd	4	02:36:45	00:07:07		115.434	5.767		48.6				
Rockland Dr	3	02:39:03	00:02:18		116.936	1.502		39.2				
Key Haven Blvd	2	02:43:00	00:03:57		120.829	3.893		59.1				2
Cow Key Bridge (N)	1	02:45:40	00:02:40		121.931	1.102		24.8	10+	TS(2)	00:00:47	
OVERALL		-----	02:28:36	00:00:36	-----	108.085	0.141	43.8			00:06:46	48

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
MONDAY, 03-02-15, 11:45 TO 02:30**



FILE:030213.XLS

—◆— SEG. SPEED

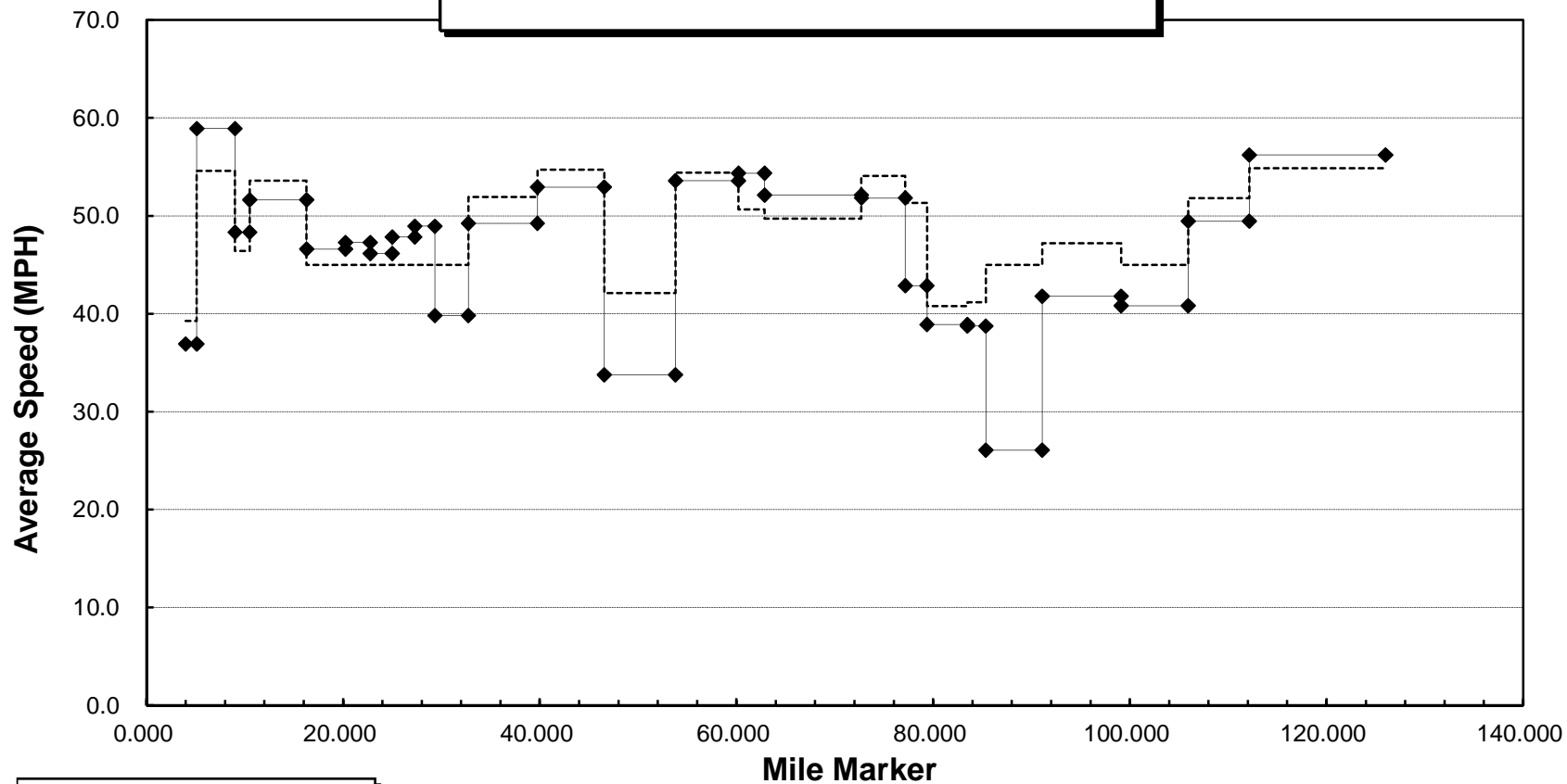
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn
WEATHER/CONDITIONS:	Clear/Sunny/Cool	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Tuesday, March 3, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ COW KEY BR:	01:45:00 PM		DB = Drawbridge
FINISH TIME @ C SOUND RD:	04:26:33		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:49	00:01:49		1.118	1.118		36.9				-4
Rockland Dr	2	00:05:47	00:03:58		5.013	3.895		58.9				4
Boca Chica Rd	3	00:07:39	00:01:52		6.516	1.503		48.3				
Harris Ch Br (N)	4	00:14:21	00:06:42		12.280	5.764		51.6				
Bow Channel Br (N)	5	00:19:27	00:05:06		16.241	3.961		46.6				
Spanish Main Dr	6	00:22:40	00:03:13		18.776	2.535		47.3				
E Shore Dr	7	00:25:33	00:02:53		20.993	2.217		46.1				1
Torch-Ramrod Br (S)	8	00:28:26	00:02:53		23.292	2.299		47.8				
N Pine Ch Br (N)	9	00:30:57	00:02:31		25.345	2.053		48.9				
Long Beach Dr	10	00:36:05	00:05:08		28.750	3.405		39.8	4	RT	00:00:06	1
7-Mile Br (S)	11	00:44:38	00:08:33		35.764	7.014		49.2				
7-Mile Br (N)	12	00:52:20	00:07:42		42.557	6.793		52.9				
Coco Plum Dr	13	01:05:33	00:13:13	00:00:22	49.806	7.249	0.020	33.8	10+	TS(2), SB, RT	00:04:02	25
Toms Harbor Ch Br (S)	14	01:12:43	00:07:10		56.207	6.401		53.6	3			2
Long Key Br (S)	15	01:15:38	00:02:55		58.849	2.642		54.3				
Channel #2 Br (N)	16	01:26:58	00:11:20		68.696	9.847		52.1				
Lignum V Br (S)	17	01:32:08	00:05:10		73.158	4.462		51.8	5			
Teatable Relf Br (N)	18	01:35:15	00:03:07		75.384	2.226		42.9	10+			
Whale Harbor Br (S)	19	01:41:35	00:06:20		79.490	4.106		38.9				
Snake Creek Br (N)	20	01:44:28	00:02:53		81.352	1.862		38.7		TS	00:00:03	
Ocean Blvd	21	01:57:40	00:13:12		87.083	5.731		26.1	10+	TS(4)	00:07:01	
Atlantic Blvd	22	02:09:12	00:11:32		95.115	8.032		41.8		CG, TS	00:01:13	17
C-905	23	02:19:14	00:10:02		101.939	6.824		40.8		TS	00:00:44	5
County Line sign	24	02:26:46	00:07:32		108.148	6.209		49.5	10+			
Card Sound Rd	25	02:41:33	00:14:47		122.000	13.852		56.2	10+			
OVERALL		-----	02:26:46	00:00:22	-----	108.148	0.020	44.3			00:13:09	51

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
TUESDAY, 03-03-15, 13:45 TO 16:30**



FILE:030213.XLS

—◆— SEG. SPEED

----- AVG. POSTED SPEED

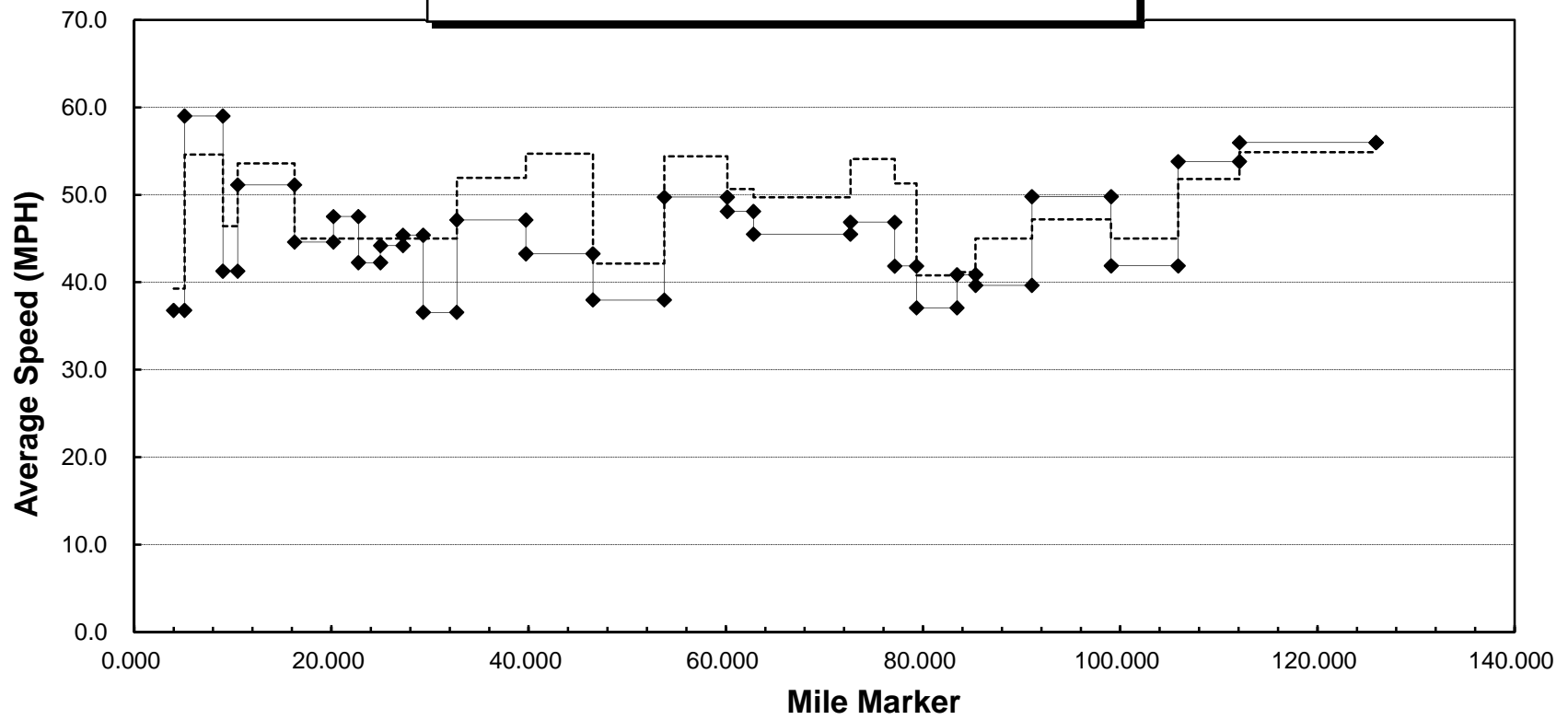


ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Tuesday, March 3, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ C SOUND RD:	09:30:00 AM		DB = Drawbridge
FINISH TIME @ COW KEY BR:	12:09:46 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:14:51	00:14:51		13.856	13.856		56.0				-6
C-905	24	00:21:47	00:06:56		20.073	6.217		53.8				
Atlantic Blvd	23	00:31:32	00:09:45		26.881	6.808		41.9	10+	TS	00:01:01	13
Ocean Blvd	22	00:41:12	00:09:40		34.901	8.020		49.8				
Snake Creek Br (N)	21	00:49:53	00:08:41		40.637	5.736		39.6	10+			1
Whale Harbor Br (S)	20	00:52:38	00:02:45		42.510	1.873		40.9	10+			
Teatable Relf Br (N)	19	00:59:16	00:06:38		46.609	4.099		37.1	10+	CG	00:00:08	
Lignum V Br (S)	18	01:02:28	00:03:12		48.841	2.232		41.9	10+			
Channel #2 Br (N)	17	01:08:11	00:05:43		53.307	4.466		46.9	10+			
Long Key Br (S)	16	01:21:10	00:12:59		63.152	9.845		45.5	10+	TS	00:00:17	
Toms Harbor Ch Br (S)	15	01:24:28	00:03:18		65.798	2.646		48.1				
Coco Plum Dr	14	01:32:10	00:07:42		72.181	6.383		49.7	10+			6
7-Mile Br (N)	13	01:43:38	00:11:28		79.438	7.257		38.0	10+	TS, LT	00:00:44	13
7-Mile Br (S)	12	01:53:03	00:09:25		86.228	6.790		43.3	10+			1
Long Beach Dr	11	02:01:59	00:08:56		93.245	7.017		47.1	10+	LT	00:00:20	4
N Pine Ch Br (N)	10	02:07:34	00:05:35		96.647	3.402		36.6	7	TS	00:00:24	
Torch-Ramrod Br (S)	9	02:10:16	00:02:42		98.690	2.043		45.4				
E Shore Dr	8	02:13:23	00:03:07		100.985	2.295		44.2				
Spanish Main Dr	7	02:16:32	00:03:09		103.203	2.218		42.2				
Bow Channel Br (N)	6	02:19:44	00:03:12		105.737	2.534		47.5				
Harris Ch Br (N)	5	02:25:04	00:05:20		109.701	3.964		44.6				
Boca Chica Rd	4	02:31:50	00:06:46		115.467	5.766		51.1	6			
Rockland Dr	3	02:34:01	00:02:11		116.969	1.502		41.3	6			
Key Haven Blvd	2	02:37:58	00:03:57		120.854	3.885		59.0	10+			
Cow Key Bridge (N)	1	02:39:46	00:01:48		121.958	1.104		36.8	10+	TS	00:00:23	4
OVERALL		-----	02:24:55	00:00:00	-----	108.102	0.000	44.8			00:03:17	36

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
TUESDAY, 03-03-15, 9:30 TO 12:10**



FILE:030213.XLS

—◆— SEG. SPEED

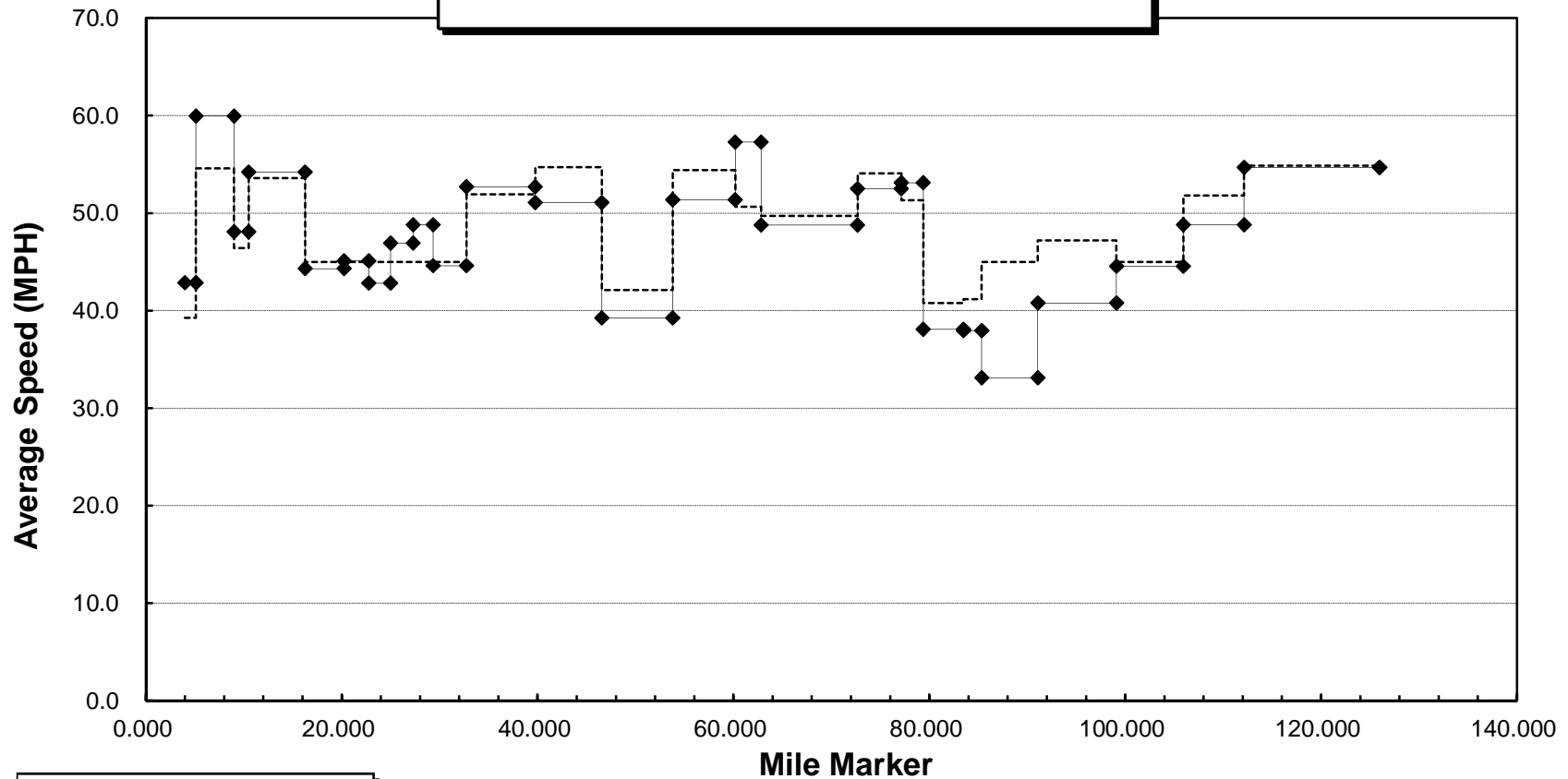
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	NH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny/Cool	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Wednesday, March 4, 2015	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	01:30:00 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	04:06:14 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:34	00:01:34		1.119	1.119		42.9				4
Rockland Dr	2	00:05:28	00:03:54		5.015	3.896		59.9				3
Boca Chica Rd	3	00:07:20	00:01:52		6.511	1.496		48.1				-1
Harris Ch Br (N)	4	00:13:43	00:06:23		12.276	5.765		54.2				
Bow Channel Br (N)	5	00:19:05	00:05:22		16.239	3.963		44.3	10+			
Spanish Main Dr	6	00:22:27	00:03:22		18.770	2.531		45.1				
E Shore Dr	7	00:25:34	00:03:07		20.994	2.224		42.8	10+			
Torch-Ramrod Br (S)	8	00:28:30	00:02:56		23.288	2.294		46.9				
N Pine Ch Br (N)	9	00:31:01	00:02:31		25.335	2.047		48.8				
Long Beach Dr	10	00:35:36	00:04:35		28.742	3.407		44.6				4
7-Mile Br (S)	11	00:43:36	00:08:00		35.768	7.026		52.7				2
7-Mile Br (N)	12	00:51:34	00:07:58		42.550	6.782		51.1				
Coco Plum Dr	13	01:02:39	00:11:05		49.799	7.249		39.2	10+	TS(3)	00:01:03	20
Toms Harbor Ch Br (S)	14	01:10:07	00:07:28		56.193	6.394		51.4				5
Long Key Br (S)	15	01:12:53	00:02:46		58.835	2.642		57.3				
Channel #2 Br (N)	16	01:25:00	00:12:07		68.685	9.850		48.8	6			
Lignum V Br (S)	17	01:30:06	00:05:06		73.148	4.463		52.5				2
Teatable Relf Br (N)	18	01:32:37	00:02:31		75.376	2.228		53.1				
Whale Harbor Br (S)	19	01:39:05	00:06:28		79.479	4.103		38.1	10+			
Snake Creek Br (N)	20	01:42:02	00:02:57		81.345	1.866		38.0				
Ocean Blvd	21	01:52:25	00:10:23		87.078	5.733		33.1	10+	RT, CG, TS	00:01:21	3
Atlantic Blvd	22	02:04:13	00:11:48		95.098	8.020		40.8	10+	TS	00:02:08	7
C-905	23	02:13:25	00:09:12		101.928	6.830		44.5				10
County Line sign	24	02:21:03	00:07:38		108.137	6.209		48.8				
Card Sound Rd	25	02:36:14	00:15:11		121.977	13.840		54.7	10+			
OVERALL		-----	02:21:03	00:00:00	-----	108.137	0.000	46.0			00:04:32	59

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
WEDNESDAY, 03-04-15, 13:30 TO 16:10**



FILE:030213.XLS

—◆— SEG. SPEED

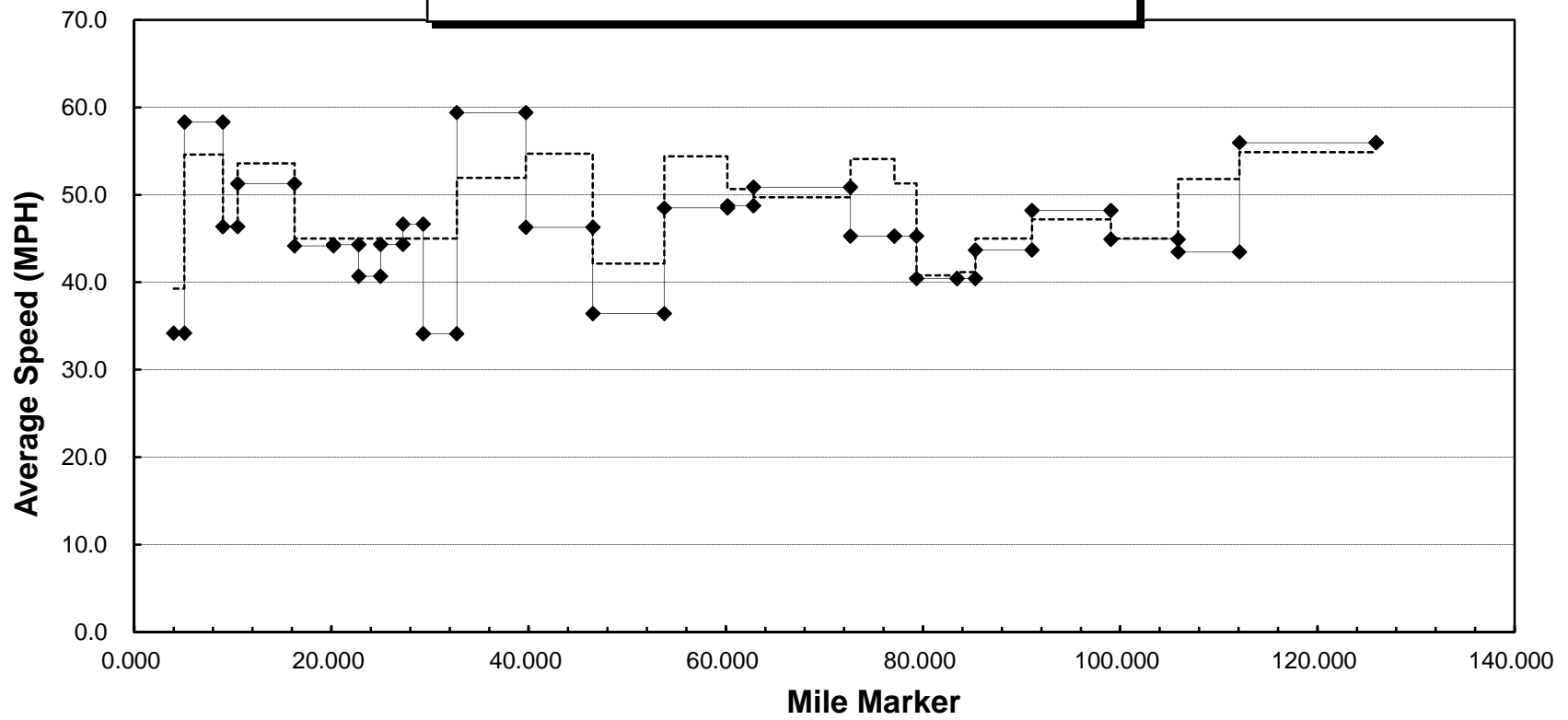
----- AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn
WEATHER/CONDITIONS:	Clear/Sunny/Cool	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Wednesday, March 4, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ C SOUND RD:	09:45:00 AM		DB = Drawbridge
FINISH TIME @ COW KEY BR:	12:22:41 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:14:51	00:14:51		13.849	13.849		56.0	10+			-8
C-905	24	00:23:27	00:08:36		20.077	6.228		43.5	10+	CG	00:00:23	
Atlantic Blvd	23	00:32:32	00:09:05		26.877	6.800		44.9	10+	TS	00:00:07	13
Ocean Blvd	22	00:42:31	00:09:59		34.896	8.019		48.2	10+			11
Snake Creek Br (N)	21	00:50:40	00:08:09	00:00:18	40.628	5.732	0.018	43.7	6	CS	00:00:18	
Whale Harbor Br (S)	20	00:53:27	00:02:47		42.503	1.875		40.4				
Teatable Relf Br (N)	19	00:59:32	00:06:05		46.603	4.100		40.4	10+			
Lignum V Br (S)	18	01:02:29	00:02:57		48.829	2.226		45.3				
Channel #2 Br (N)	17	01:08:24	00:05:55		53.292	4.463		45.3	10+	LT	00:00:25	
Long Key Br (S)	16	01:20:01	00:11:37		63.140	9.848		50.9				
Toms Harbor Ch Br (S)	15	01:23:16	00:03:15		65.781	2.641		48.8	10+			
Coco Plum Dr	14	01:31:10	00:07:54		72.167	6.386		48.5	10+			
7-Mile Br (N)	13	01:43:08	00:11:58		79.428	7.261		36.4	10+	TS(2)	00:00:40	3
7-Mile Br (S)	12	01:51:56	00:08:48		86.218	6.790		46.3				
Long Beach Dr	11	01:59:01	00:07:05		93.229	7.011		59.4	10+			1
N Pine Ch Br (N)	10	02:05:00	00:05:59		96.630	3.401		34.1	10+	LT, TS	00:01:13	
Torch-Ramrod Br (S)	9	02:07:38	00:02:38		98.678	2.048		46.7	10+			
E Shore Dr	8	02:10:44	00:03:06		100.969	2.291		44.3	10+			
Spanish Main Dr	7	02:14:14	00:03:30	00:00:16	103.186	2.217	0.024	40.7	10+	CS	00:00:16	
Bow Channel Br (N)	6	02:17:40	00:03:26		105.721	2.535		44.3				
Harris Ch Br (N)	5	02:23:04	00:05:24		109.694	3.973		44.1	10+			
Boca Chica Rd	4	02:29:48	00:06:44		115.449	5.755		51.3				
Rockland Dr	3	02:31:45	00:01:57		116.956	1.507		46.4				
Key Haven Blvd	2	02:35:45	00:04:00		120.843	3.887		58.3				2
Cow Key Bridge (N)	1	02:37:41	00:01:56		121.944	1.101		34.2	6	TS	00:00:10	7
OVERALL		-----	02:22:50	00:00:34	-----	108.095	0.042	45.6			00:03:32	29

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
WEDNESDAY, 03-04-15, 09:45 TO 12:25**



FILE:030213.XLS

—◆— SEG. SPEED

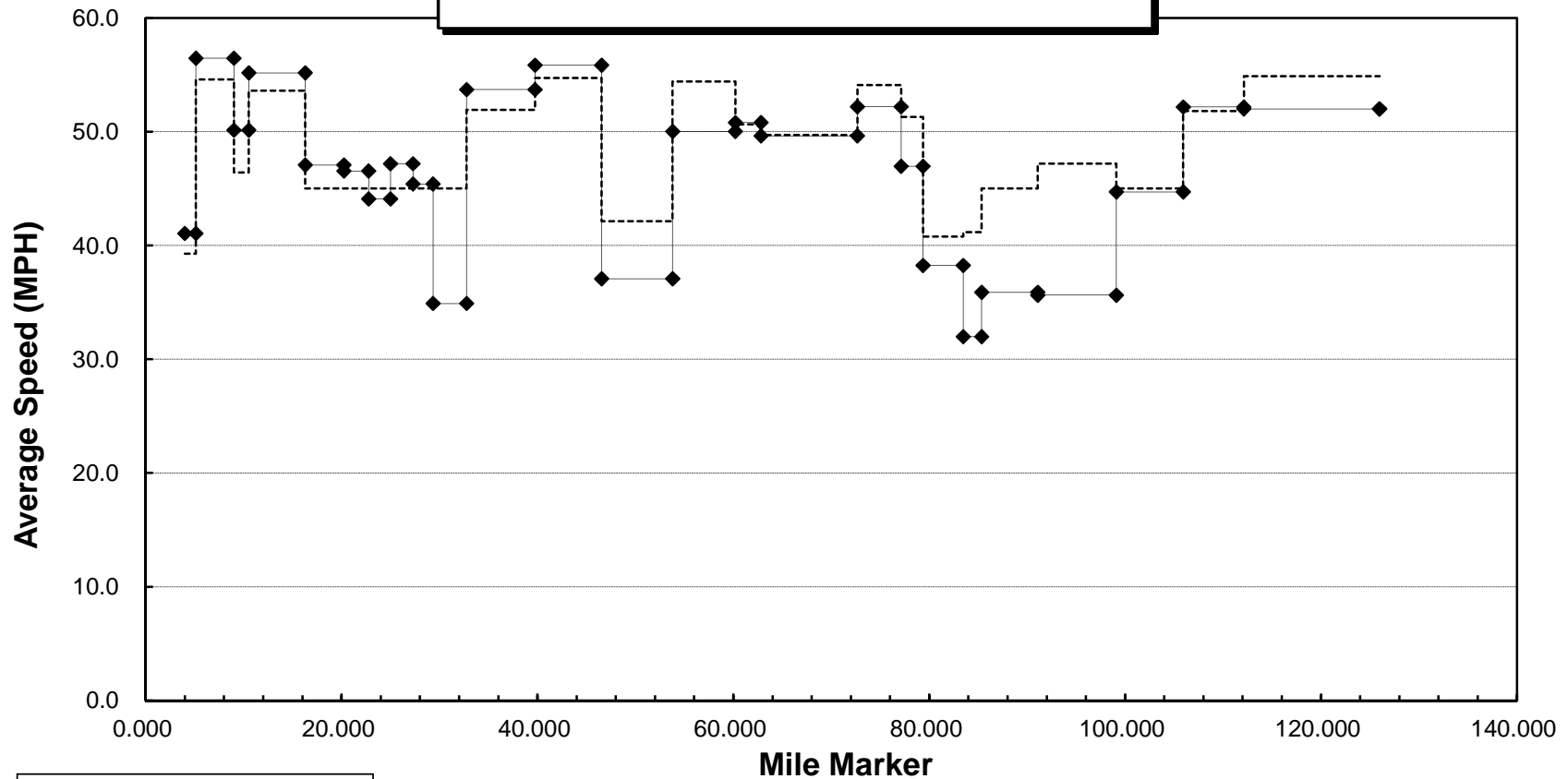
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	NH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Thursday, March 5, 2015	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	02:00:00 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	04:45:39 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:01:39	00:01:39		1.129	1.129		41.1				2
Rockland Dr	2	00:05:47	00:04:08		5.018	3.889		56.5				-4
Boca Chica Rd	3	00:07:35	00:01:48		6.522	1.504		50.1				
Harris Ch Br (N)	4	00:13:51	00:06:16		12.283	5.761		55.2				
Bow Channel Br (N)	5	00:19:20	00:05:29	00:00:33	16.248	3.965	0.096	47.1	10+	CS	00:00:33	
Spanish Main Dr	6	00:22:36	00:03:16		18.782	2.534		46.5				
E Shore Dr	7	00:25:37	00:03:01		20.999	2.217		44.1				
Torch-Ramrod Br (S)	8	00:28:32	00:02:55		23.293	2.294		47.2				
N Pine Ch Br (N)	9	00:31:15	00:02:43		25.349	2.056		45.4				
Long Beach Dr	10	00:37:06	00:05:51		28.751	3.402		34.9	10+			1
7-Mile Br (S)	11	00:44:56	00:07:50		35.762	7.011		53.7				4
7-Mile Br (N)	12	00:52:14	00:07:18		42.555	6.793		55.8				
Coco Plum Dr	13	01:04:59	00:12:45	00:01:07	49.793	7.238	0.052	37.1	10+	LT,SB(2),TS	00:02:17	11
Toms Harbor Ch Br (S)	14	01:12:40	00:07:41		56.200	6.407		50.0				2
Long Key Br (S)	15	01:15:47	00:03:07		58.839	2.639		50.8				
Channel #2 Br (N)	16	01:27:40	00:11:53		68.667	9.828		49.6				
Lignum V Br (S)	17	01:32:49	00:05:09		73.148	4.481		52.2				
Teatable Relf Br (N)	18	01:35:40	00:02:51		75.379	2.231		47.0				
Whale Harbor Br (S)	19	01:42:06	00:06:26		79.478	4.099		38.2	10+	RT	00:00:11	
Snake Creek Br (N)	20	01:50:02	00:07:56	00:05:23	81.340	1.862	0.503	32.0	10+	CS(2)	00:05:23	
Ocean Blvd	21	01:59:51	00:09:49	00:00:33	87.068	5.728	0.186	35.9	10+	CS,TS	00:00:46	4
Atlantic Blvd	22	02:13:22	00:13:31		95.096	8.028		35.6	10+	TS	00:04:01	6
C-905	23	02:22:32	00:09:10		101.926	6.830		44.7				6
County Line sign	24	02:29:40	00:07:08		108.129	6.203		52.2				
Card Sound Rd	25	02:45:39	00:15:59		121.981	13.852		52.0	10+			-9
OVERALL		-----	02:29:40	00:07:36	-----	108.129	0.837	45.3			00:13:11	23

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
THURSDAY, 03-05-15, 14:00 TO 16:45**



FILE:030213.XLS

—◆— SEG. SPEED

----- AVG. POSTED SPEED

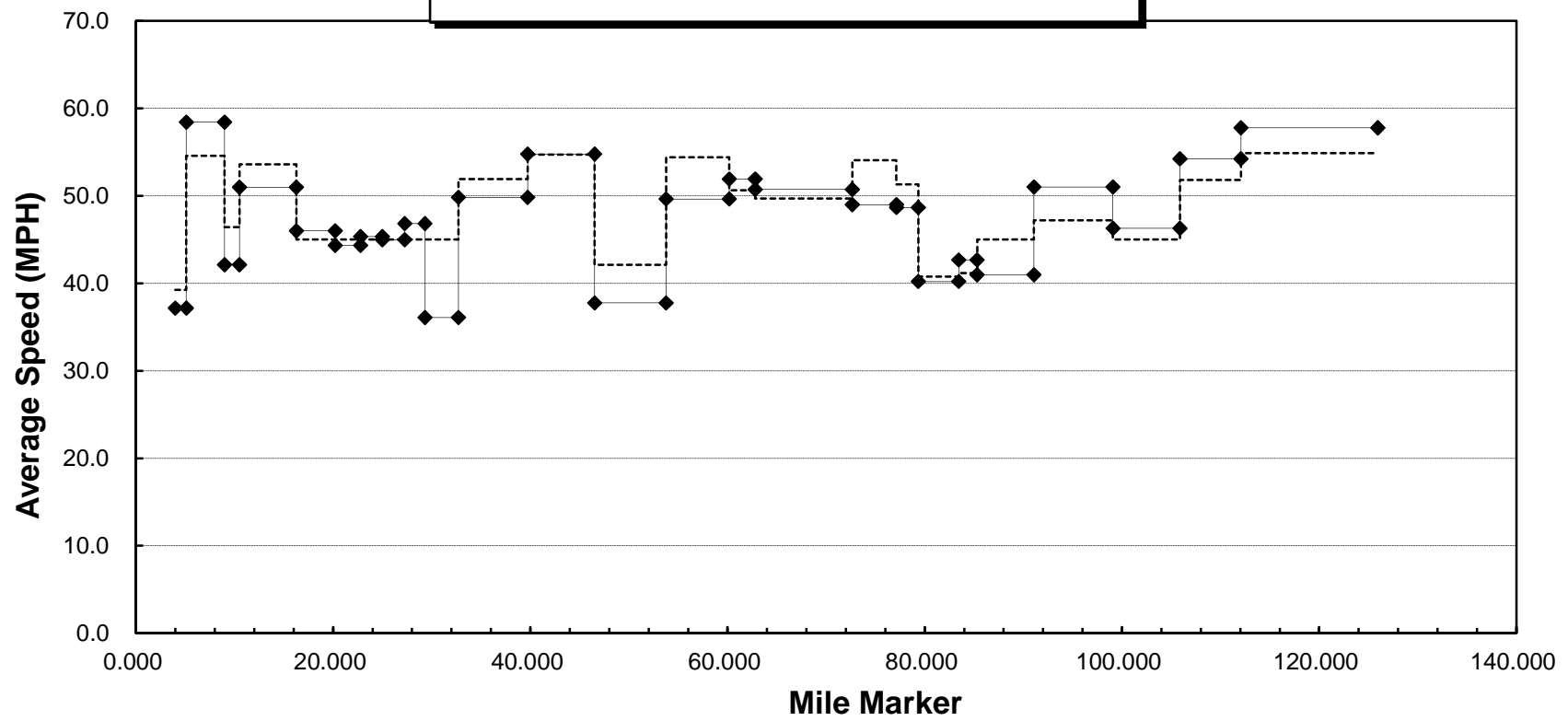


ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	AE		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Cloudy	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Thursday, March 5, 2015	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ C SOUND RD:	9:45:00 AM		DB = Drawbridge	AC = Accident
FINISH TIME @ COW KEY BR:	12:17:17 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25	00:14:25	00:14:25		13.886	13.886		57.8				-3
C-905	24	00:21:16	00:06:51		20.078	6.192		54.2	10+			
Atlantic Blvd	23	00:30:05	00:08:49		26.881	6.803		46.3	10+	TS	00:00:20	2
Ocean Blvd	22	00:39:31	00:09:26		34.900	8.019		51.0				25
Snake Creek Br (N)	21	00:47:55	00:08:24		40.638	5.738		41.0	10+	TS, LT	00:00:14	3
Whale Harbor Br (S)	20	00:50:33	00:02:38		42.511	1.873		42.7				
Teatable Relf Br (N)	19	00:56:40	00:06:07		46.610	4.099		40.2	10+			
Lignum V Br (S)	18	00:59:25	00:02:45		48.840	2.230		48.7				
Channel #2 Br (N)	17	01:04:53	00:05:28		53.303	4.463		49.0	10+	LT	00:00:06	
Long Key Br (S)	16	01:16:32	00:11:39		63.155	9.852		50.7	10+			
Toms Harbor Ch Br (S)	15	01:19:35	00:03:03		65.795	2.640		51.9				
Coco Plum Dr	14	01:27:18	00:07:43		72.178	6.383		49.6	10+			
7-Mile Br (N)	13	01:38:50	00:11:32		79.437	7.259		37.8	10+	TS(3)	00:00:59	11
7-Mile Br (S)	12	01:46:16	00:07:26		86.222	6.785		54.8				
Long Beach Dr	11	01:54:43	00:08:27		93.239	7.017		49.8	10+			
N Pine Ch Br (N)	10	02:00:22	00:05:39		96.638	3.399		36.1	10+			
Torch-Ramrod Br (S)	9	02:03:00	00:02:38		98.694	2.056		46.8				
E Shore Dr	8	02:06:03	00:03:03		100.981	2.287		45.0				
Spanish Main Dr	7	02:08:59	00:02:56		103.198	2.217		45.3				
Bow Channel Br (N)	6	02:12:25	00:03:26		105.736	2.538		44.4	10+			
Harris Ch Br (N)	5	02:17:35	00:05:10		109.698	3.962		46.0				
Boca Chica Rd	4	02:24:22	00:06:47		115.463	5.765		51.0				
Rockland Dr	3	02:26:31	00:02:09		116.973	1.510		42.1				
Key Haven Blvd	2	02:30:30	00:03:59		120.853	3.880		58.4				4
Cow Key Bridge (N)	1	02:32:17	00:01:47		121.958	1.105		37.2	10+			5
OVERALL		-----	02:17:52	00:00:00	-----	108.072	0.000	47.0			00:01:39	47

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
THURSDAY, 03-05-15, 9:45 TO 12:20**



FILE:030213.XLS

—◆— SEG. SPEED

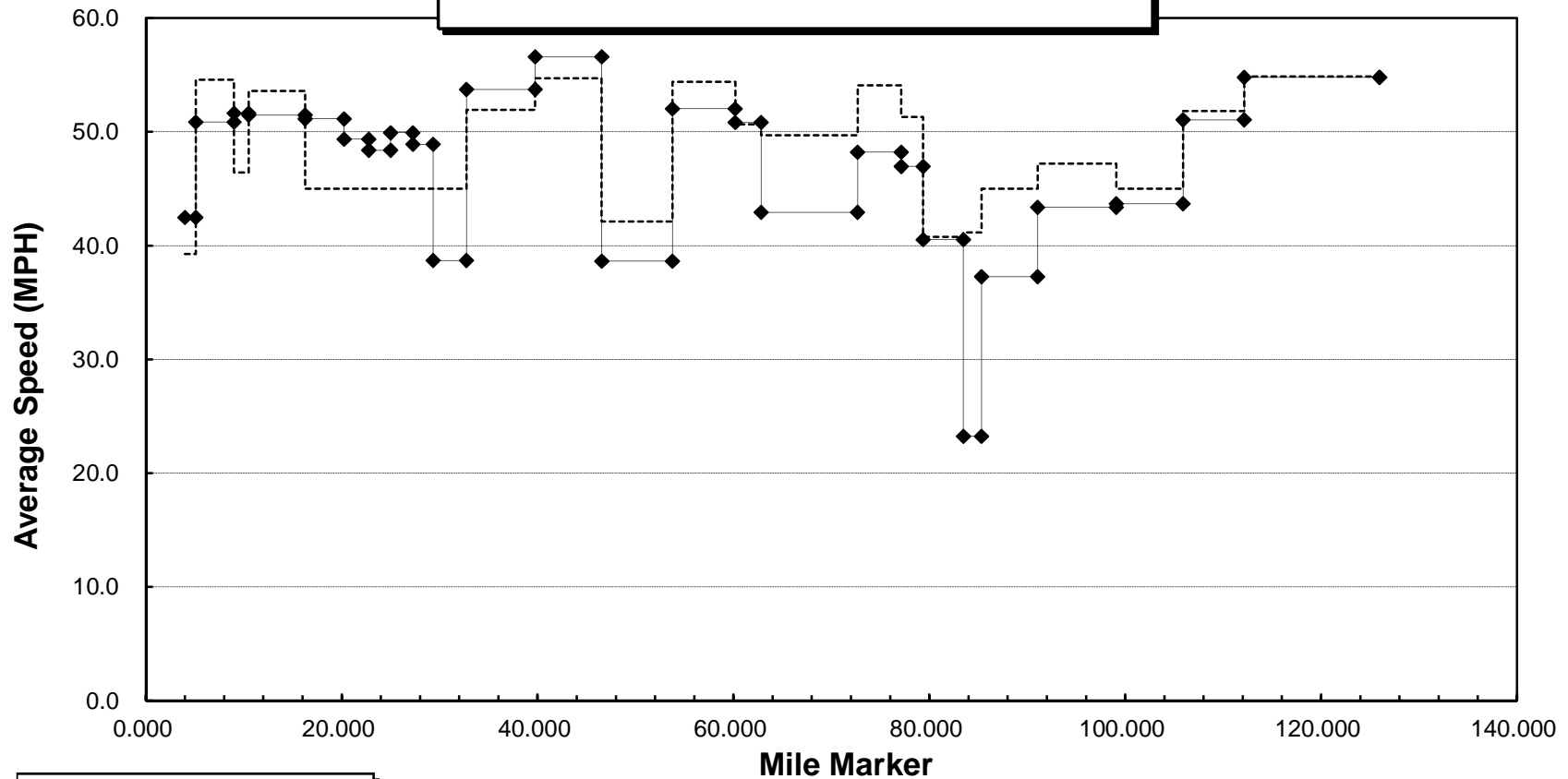
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	NH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Friday, March 6, 2015	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	02:30:00 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	05:43:00 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:34	00:01:34		1.109	1.109		42.5				2
Rockland Dr	2	00:06:10	00:04:36		5.009	3.900		50.9				-5
Boca Chica Rd	3	00:07:55	00:01:45		6.515	1.506		51.6				
Harris Ch Br (N)	4	00:14:37	00:06:42		12.261	5.746		51.5				
Bow Channel Br (N)	5	00:19:17	00:04:40		16.239	3.978		51.1				
Spanish Main Dr	6	00:22:22	00:03:05		18.775	2.536		49.3				
E Shore Dr	7	00:25:07	00:02:45		20.992	2.217		48.4				
Torch-Ramrod Br (S)	8	00:27:52	00:02:45		23.280	2.288		49.9				
N Pine Ch Br (N)	9	00:30:23	00:02:31		25.331	2.051		48.9				
Long Beach Dr	10	00:35:40	00:05:17		28.738	3.407		38.7				3
7-Mile Br (S)	11	00:43:30	00:07:50		35.752	7.014		53.7				5
7-Mile Br (N)	12	00:50:42	00:07:12		42.542	6.790		56.6				
Coco Plum Dr	13	01:01:57	00:11:15		49.785	7.243		38.6	10+	TS(3)	00:01:03	
Toms Harbor Ch Br (S)	14	01:09:20	00:07:23		56.188	6.403		52.0				
Long Key Br (S)	15	01:12:27	00:03:07		58.828	2.640		50.8				
Channel #2 Br (N)	16	01:26:13	00:13:46		68.678	9.850		42.9				
Lignum V Br (S)	17	01:31:46	00:05:33		73.138	4.460		48.2				
Teatable Relf Br (N)	18	01:34:37	00:02:51		75.369	2.231		47.0				
Whale Harbor Br (S)	19	01:42:33	00:07:56	00:03:04	79.469	4.100	0.812	40.5		CS	00:03:04	
Snake Creek Br (N)	20	01:57:16	00:14:43	00:11:05	81.328	1.859	0.452	23.2		CS(3)	00:11:05	
Ocean Blvd	21	02:06:30	00:09:14		87.063	5.735		37.3		TS	00:00:54	8
Atlantic Blvd	22	02:17:36	00:11:06		95.087	8.024		43.4	10+	TS(2)	00:01:12	10
C-905	23	02:26:59	00:09:23		101.916	6.829		43.7	10+	TS	00:00:33	-1
County Line sign	24	02:34:19	00:07:20		108.155	6.239		51.0				
Card Sound Rd	25	02:49:27	00:15:08		121.972	13.817		54.8				-8
OVERALL		-----	02:34:19	00:14:09	-----	108.155	1.264	45.8			00:17:51	14

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
FRIDAY, 03-06-15, 14:30 TO 17:45**



FILE:030213.XLS

—◆— SEG. SPEED

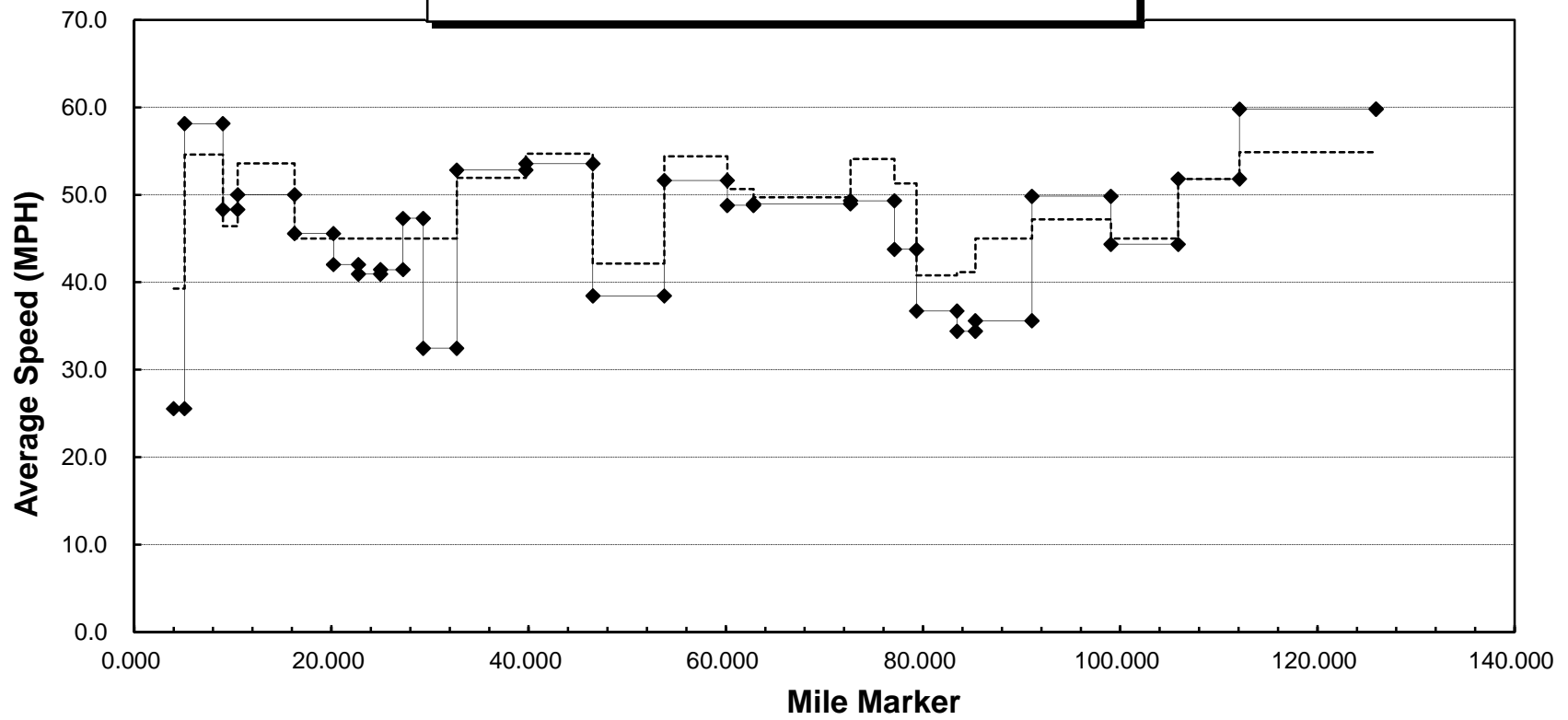
----- AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Friday, March 6, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ C SOUND RD:	10:15:00 AM		DB = Drawbridge
FINISH TIME @ COW KEY BR:	01:27:00 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:13:54	00:13:54		13.851	13.851		59.8				-7
C-905	24	00:21:06	00:07:12		20.069	6.218		51.8	10+			
Atlantic Blvd	23	00:30:18	00:09:12		26.869	6.800		44.3	10+	TS	00:00:41	2
Ocean Blvd	22	00:39:57	00:09:39		34.885	8.016		49.8	3			6
Snake Creek Br (N)	21	00:53:35	00:13:38	00:04:11	40.625	5.740	0.136	35.6	10+	TS, DB	00:04:37	14
Whale Harbor Br (S)	20	00:56:51	00:03:16		42.497	1.872		34.4	10+			
Teatable Relf Br (N)	19	01:03:33	00:06:42		46.598	4.101		36.7	10+			
Lignum V Br (S)	18	01:06:36	00:03:03		48.823	2.225		43.8	10+			
Channel #2 Br (N)	17	01:12:02	00:05:26		53.288	4.465		49.3	10+			
Long Key Br (S)	16	01:24:06	00:12:04		63.132	9.844		48.9	10+			
Toms Harbor Ch Br (S)	15	01:27:21	00:03:15		65.775	2.643		48.8				
Coco Plum Dr	14	01:34:46	00:07:25		72.158	6.383		51.6	10+			
7-Mile Br (N)	13	01:46:06	00:11:20		79.420	7.262		38.4	10+	TS(2)	00:00:58	21
7-Mile Br (S)	12	01:53:42	00:07:36		86.205	6.785		53.6				
Long Beach Dr	11	02:01:40	00:07:58		93.221	7.016		52.8				1
N Pine Ch Br (N)	10	02:07:57	00:06:17		96.620	3.399		32.5	10+	TS	00:01:15	
Torch-Ramrod Br (S)	9	02:10:33	00:02:36		98.670	2.050		47.3				
E Shore Dr	8	02:13:52	00:03:19		100.961	2.291		41.4	10+			
Spanish Main Dr	7	02:17:07	00:03:15		103.179	2.218		40.9	10+			1
Bow Channel Br (N)	6	02:20:44	00:03:37		105.712	2.533		42.0	10+			
Harris Ch Br (N)	5	02:25:57	00:05:13		109.675	3.963		45.6	10+			
Boca Chica Rd	4	02:32:52	00:06:55		115.442	5.767		50.0				
Rockland Dr	3	02:34:44	00:01:52		116.945	1.503		48.3				
Key Haven Blvd	2	02:38:44	00:04:00		120.821	3.876		58.1				3
Cow Key Bridge (N)	1	02:41:21	00:02:37		121.935	1.114		25.5	10+	TS(2)	00:00:49	
OVERALL		-----	02:27:27	00:00:00	-----	108.084	0.000	44.0			00:08:20	41

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
FRIDAY, 03-06-15, 10:15 TO 13:30**



FILE:030213.XLS

—◆— SEG. SPEED

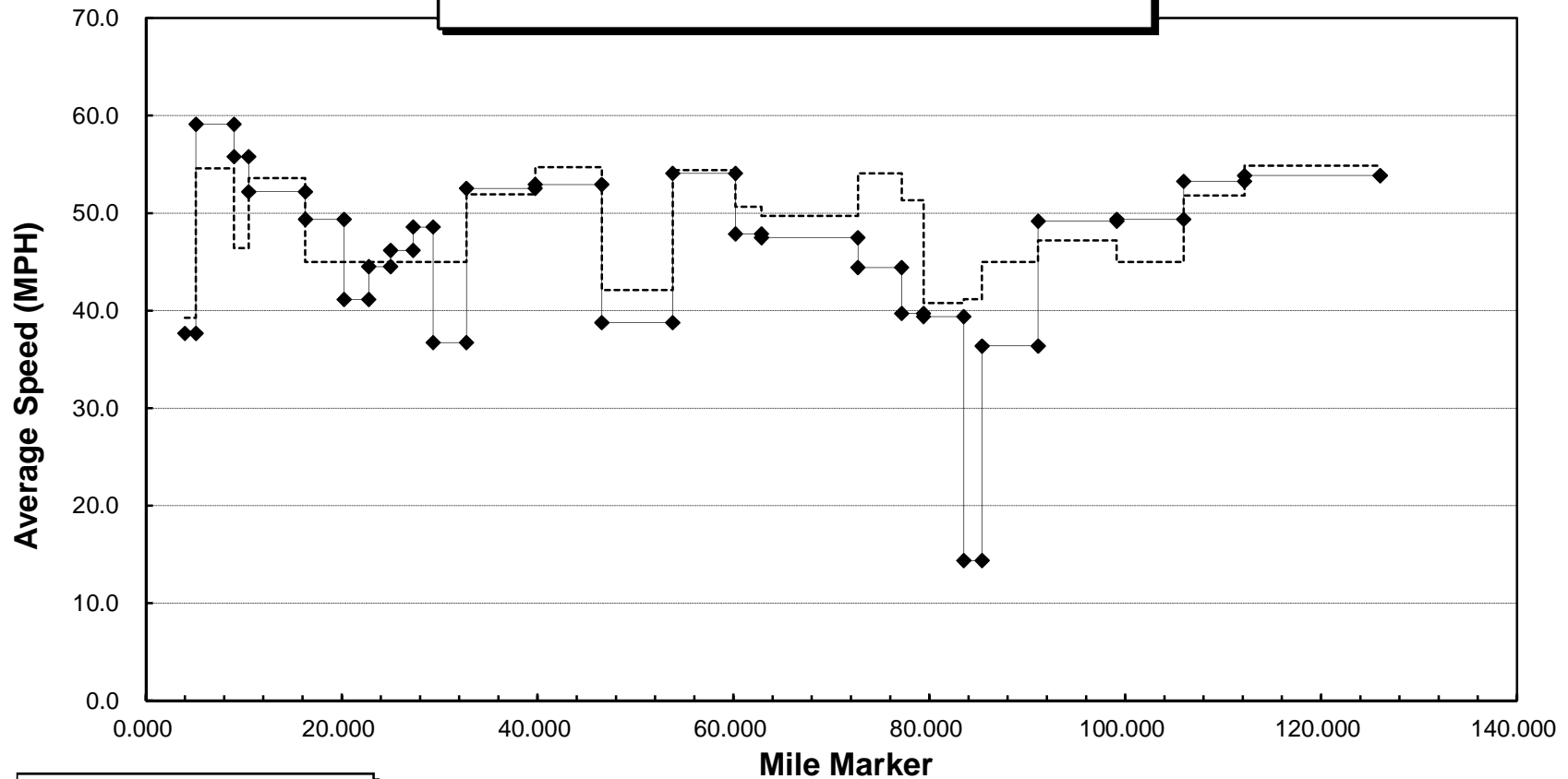
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Saturday, March 7, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ COW KEY BR:	03:00:00 PM		DB = Drawbridge
FINISH TIME @ C SOUND RD:	05:40:11 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:47	00:01:47		1.119	1.119		37.6	3	TS	00:00:05	2
Rockland Dr	2	00:05:44	00:03:57		5.010	3.891		59.1				2
Boca Chica Rd	3	00:07:21	00:01:37		6.513	1.503		55.8				
Harris Ch Br (N)	4	00:13:59	00:06:38		12.282	5.769		52.2				
Bow Channel Br (N)	5	00:18:48	00:04:49		16.244	3.962		49.4				
Spanish Main Dr	6	00:22:30	00:03:42		18.781	2.537		41.1				
E Shore Dr	7	00:25:29	00:02:59		20.994	2.213		44.5	10+			
Torch-Ramrod Br (S)	8	00:28:28	00:02:59		23.290	2.296		46.2				
N Pine Ch Br (N)	9	00:31:00	00:02:32		25.341	2.051		48.6				
Long Beach Dr	10	00:36:34	00:05:34		28.749	3.408		36.7	10+	TS	00:00:34	4
7-Mile Br (S)	11	00:44:35	00:08:01		35.768	7.019		52.5				1
7-Mile Br (N)	12	00:52:17	00:07:42		42.561	6.793		52.9				
Coco Plum Dr	13	01:03:30	00:11:13		49.810	7.249		38.8	4	TS(2)	00:01:05	9
Toms Harbor Ch Br (S)	14	01:10:36	00:07:06		56.210	6.400		54.1				
Long Key Br (S)	15	01:13:55	00:03:19		58.856	2.646		47.9				
Channel #2 Br (N)	16	01:26:22	00:12:27		68.710	9.854		47.5				
Lignum V Br (S)	17	01:32:24	00:06:02		73.177	4.467		44.4	5			
Teatable Relf Br (N)	18	01:35:46	00:03:22		75.406	2.229		39.7				
Whale Harbor Br (S)	19	01:42:01	00:06:15		79.509	4.103		39.4				
Snake Creek Br (N)	20	01:49:48	00:07:47		81.374	1.865		14.4	10+	CG(2)	00:05:22	
Ocean Blvd	21	01:59:39	00:09:51	00:00:30	87.105	5.731	0.062	36.4	10+	AC, TS	00:00:41	2
Atlantic Blvd	22	02:09:27	00:09:48		95.137	8.032		49.2	10+	TS	00:00:10	6
C-905	23	02:17:45	00:08:18		101.963	6.826		49.3				5
County Line sign	24	02:24:45	00:07:00		108.176	6.213		53.3				
Card Sound Rd	25	02:40:11	00:15:26		122.029	13.853		53.9				-4
OVERALL		-----	02:24:45	00:00:30	-----	108.176	0.062	45.0			00:07:57	27

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
SATURDAY, 03-07-15, 15:00 TO 17:40**



FILE:030213.XLS

—◆— SEG. SPEED

----- AVG. POSTED SPEED

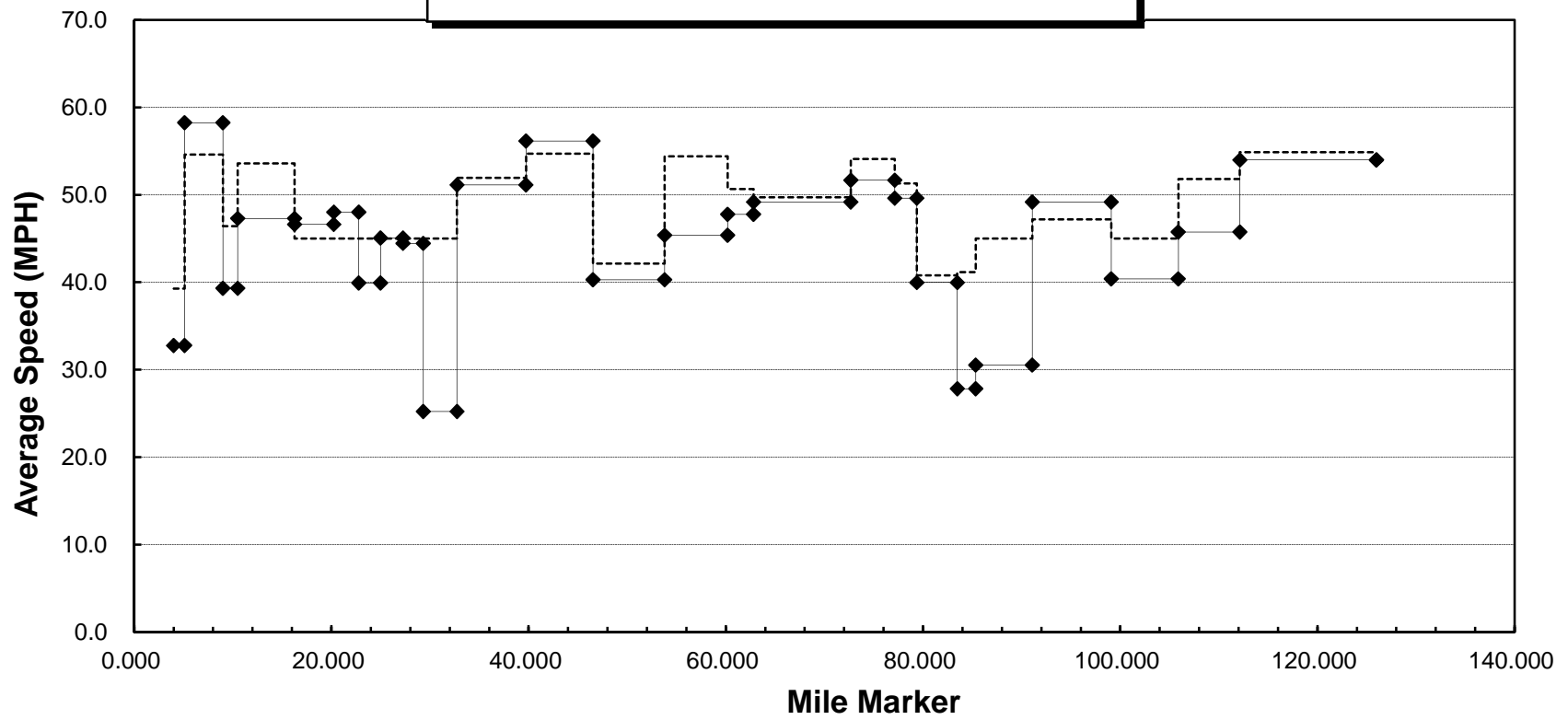


ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn
WEATHER/CONDITIONS:	Cloudy/Slight Rain	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Saturday, March 7, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ C SOUND RD:	11:30:00 AM		DB = Drawbridge
FINISH TIME @ COW KEY BR:	02:20:38 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:15:24	00:15:24		13.860	13.860		54.0	10+			4
C-905	24	00:23:34	00:08:10		20.087	6.227		45.7	10+			
Atlantic Blvd	23	00:33:40	00:10:06		26.887	6.800		40.4	10+	TS	00:00:09	8
Ocean Blvd	22	00:43:27	00:09:47		34.906	8.019		49.2	6	TS(2)	00:01:30	8
Snake Creek Br (N)	21	01:01:19	00:17:52	00:07:09	40.648	5.742	0.286	30.5	10+	CG(2), DB	00:08:20	2
Whale Harbor Br (S)	20	01:05:21	00:04:02		42.518	1.870		27.8	10+	CG(2)	00:00:58	
Teatable Relf Br (N)	19	01:11:30	00:06:09		46.615	4.097		40.0				
Lignum V Br (S)	18	01:14:12	00:02:42		48.848	2.233		49.6				
Channel #2 Br (N)	17	01:19:23	00:05:11		53.313	4.465		51.7				
Long Key Br (S)	16	01:31:24	00:12:01		63.162	9.849		49.2				
Toms Harbor Ch Br (S)	15	01:34:43	00:03:19		65.802	2.640		47.8				
Coco Plum Dr	14	01:43:10	00:08:27		72.192	6.390		45.4	10+	TS	00:00:07	
7-Mile Br (N)	13	01:53:59	00:10:49		79.456	7.264		40.3	10+	TS	00:00:17	11
7-Mile Br (S)	12	02:01:14	00:07:15		86.240	6.784		56.1				
Long Beach Dr	11	02:09:28	00:08:14		93.255	7.015		51.1				-2
N Pine Ch Br (N)	10	02:17:34	00:08:06		96.659	3.404		25.2	10+	TS	00:03:21	
Torch-Ramrod Br (S)	9	02:20:20	00:02:46		98.708	2.049		44.4				
E Shore Dr	8	02:23:23	00:03:03		100.999	2.291		45.1	10+			
Spanish Main Dr	7	02:26:43	00:03:20		103.217	2.218		39.9				
Bow Channel Br (N)	6	02:29:53	00:03:10		105.752	2.535		48.0	10+			
Harris Ch Br (N)	5	02:34:59	00:05:06		109.715	3.963		46.6	10+			
Boca Chica Rd	4	02:42:18	00:07:19		115.481	5.766		47.3	10+			
Rockland Dr	3	02:44:36	00:02:18		116.988	1.507		39.3				
Key Haven Blvd	2	02:48:36	00:04:00		120.870	3.882		58.2				-1
Cow Key Bridge (N)	1	02:50:38	00:02:02		121.981	1.111		32.8	10+	TS	00:00:18	7
OVERALL		-----	02:35:14	00:00:00	-----	108.121	0.000	41.8			00:15:00	37

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
SATURDAY, 03-07-15, 11:30 TO 14:25**



FILE:030213.XLS

—◆— SEG. SPEED

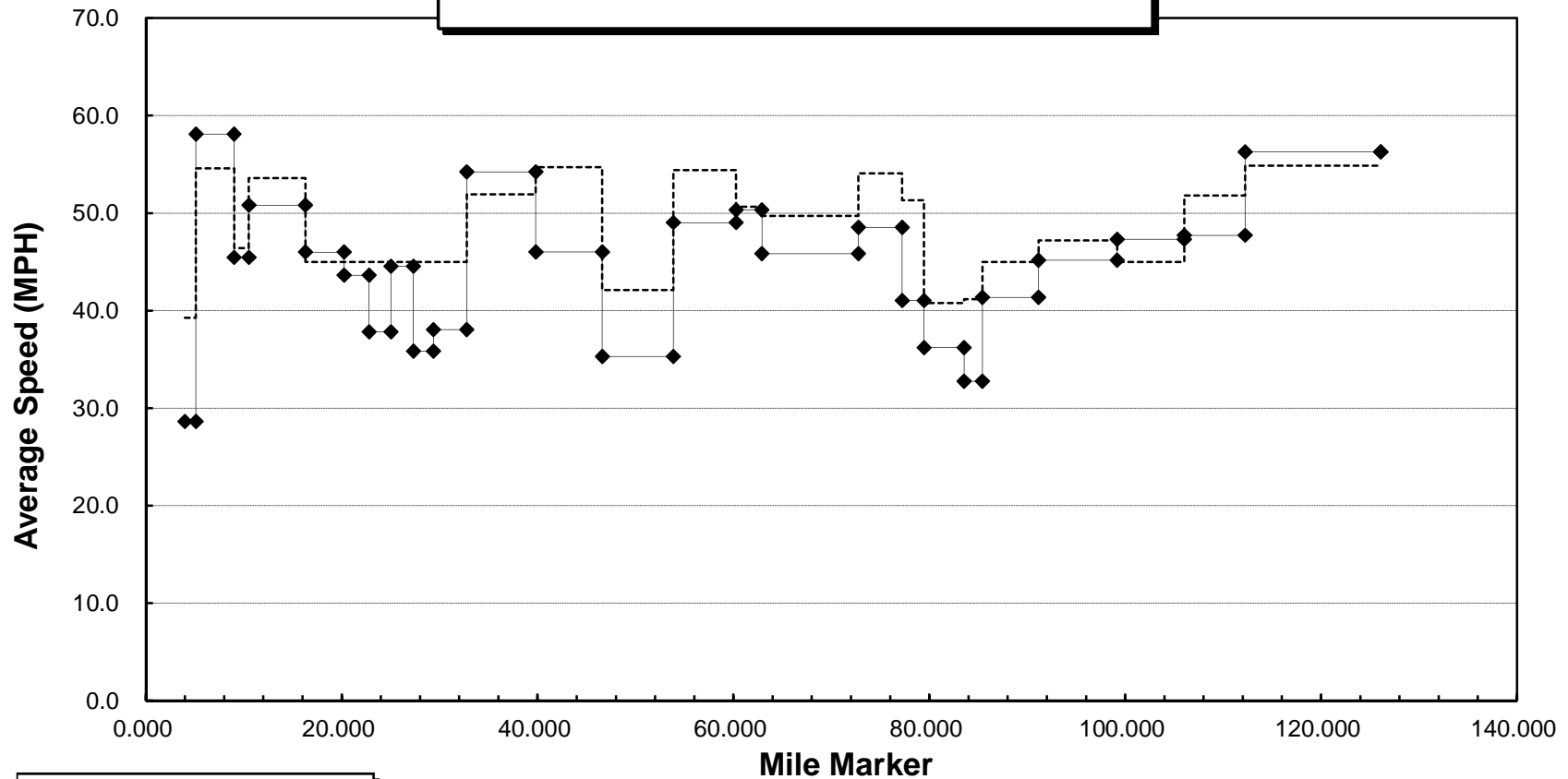
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn
WEATHER/CONDITIONS:	Scattered Showers	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Sunday, March 8, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ COW KEY BR:	11:30:00 AM		DB = Drawbridge
FINISH TIME @ C SOUND RD:	02:15:33 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:02:20	00:02:20		1.114	1.114		28.6	6	TS(2)	00:00:43	-2
Rockland Dr	2	00:06:22	00:04:02		5.019	3.905		58.1				-1
Boca Chica Rd	3	00:08:21	00:01:59		6.522	1.503		45.5				1
Harris Ch Br (N)	4	00:15:10	00:06:49		12.295	5.773		50.8	10+			
Bow Channel Br (N)	5	00:20:20	00:05:10		16.256	3.961		46.0	10+			
Spanish Main Dr	6	00:23:50	00:03:30		18.801	2.545		43.6				
E Shore Dr	7	00:27:22	00:03:32		21.028	2.227		37.8				
Torch-Ramrod Br (S)	8	00:30:27	00:03:05		23.318	2.290		44.6				
N Pine Ch Br (N)	9	00:34:24	00:03:57	00:00:45	25.373	2.055	0.143	35.9	10+	CS	00:00:45	
Long Beach Dr	10	00:40:18	00:05:54	00:01:01	28.775	3.402	0.304	38.1	10+	CS, TS	00:01:40	10
7-Mile Br (S)	11	00:48:05	00:07:47		35.808	7.033		54.2				-1
7-Mile Br (N)	12	00:56:57	00:08:52		42.607	6.799		46.0	10+			
Coco Plum Dr	13	01:09:17	00:12:20		49.861	7.254		35.3	10+	TS(3)	00:01:06	23
Toms Harbor Ch Br (S)	14	01:17:07	00:07:50		56.261	6.400		49.0	10+			
Long Key Br (S)	15	01:20:16	00:03:09		58.903	2.642		50.3				
Channel #2 Br (N)	16	01:33:10	00:12:54		68.760	9.857		45.8	10+			
Lignum V Br (S)	17	01:38:41	00:05:31		73.223	4.463		48.5				
Teatable Relf Br (N)	18	01:41:57	00:03:16		75.458	2.235		41.1	10+	LT	00:00:07	
Whale Harbor Br (S)	19	01:51:12	00:09:15	00:03:19	79.558	4.100	0.520	36.2	10+	CS(2)	00:03:19	
Snake Creek Br (N)	20	01:55:19	00:04:07	00:01:18	81.422	1.864	0.326	32.8	10+	CS	00:01:18	
Ocean Blvd	21	02:03:38	00:08:19		87.154	5.732		41.4	10+			-1
Atlantic Blvd	22	02:14:18	00:10:40		95.186	8.032		45.2		TS	00:00:53	1
C-905	23	02:22:58	00:08:40		102.022	6.836		47.3				3
County Line sign	24	02:30:47	00:07:49		108.240	6.218		47.7	10+			
Card Sound Rd	25	02:45:33	00:14:46		122.092	13.852		56.3				-2
OVERALL		-----	02:30:47	00:06:23	-----	108.240	1.293	44.4			00:09:51	31

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
SUNDAY, 03-08-15, 11:30 TO 14:15**



FILE:030213.XLS

—◆— SEG. SPEED

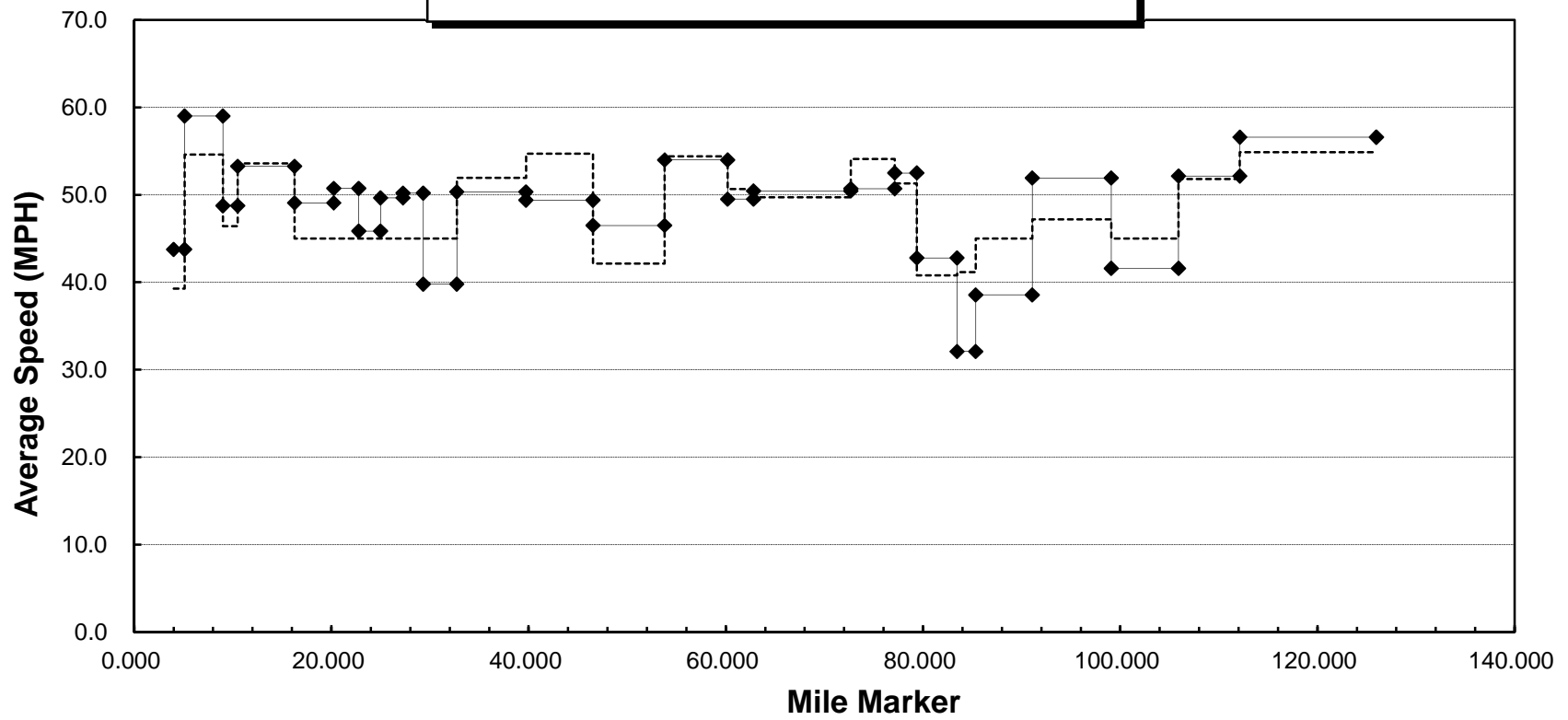
----- AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn
WEATHER/CONDITIONS:	Rainy	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Sunday, March 8, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ C SOUND RD:	03:15:00 PM		DB = Drawbridge
FINISH TIME @ COW KEY BR:	05:52:09 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:14:42	00:14:42		13.862	13.862		56.6	10+			-6
C-905	24	00:21:51	00:07:09		20.075	6.213		52.1	10+			
Atlantic Blvd	23	00:31:41	00:09:50		26.889	6.814		41.6	10+	TS(2)	00:01:06	6
Ocean Blvd	22	00:40:57	00:09:16		34.907	8.018		51.9				-2
Snake Creek Br (N)	21	00:57:09	00:16:12	00:07:26	40.648	5.741	0.108	38.6	10+	DB	00:07:26	-1
Whale Harbor Br (S)	20	01:00:39	00:03:30		42.520	1.872		32.1	10+			
Teatable Relf Br (N)	19	01:06:24	00:05:45		46.619	4.099		42.8	10+			
Lignum V Br (S)	18	01:08:57	00:02:33		48.850	2.231		52.5				
Channel #2 Br (N)	17	01:14:14	00:05:17		53.314	4.464		50.7	10+			
Long Key Br (S)	16	01:25:57	00:11:43		63.161	9.847		50.4				
Toms Harbor Ch Br (S)	15	01:29:09	00:03:12		65.802	2.641		49.5				
Coco Plum Dr	14	01:36:15	00:07:06		72.190	6.388		54.0				
7-Mile Br (N)	13	01:45:37	00:09:22		79.448	7.258		46.5	5	TS	00:00:13	
7-Mile Br (S)	12	01:53:52	00:08:15		86.238	6.790		49.4	10+			
Long Beach Dr	11	02:02:14	00:08:22		93.257	7.019		50.3				3
N Pine Ch Br (N)	10	02:07:22	00:05:08		96.661	3.404		39.8	6			
Torch-Ramrod Br (S)	9	02:09:49	00:02:27		98.710	2.049		50.2				
E Shore Dr	8	02:12:35	00:02:46		100.999	2.289		49.6				
Spanish Main Dr	7	02:15:29	00:02:54		103.215	2.216		45.8				
Bow Channel Br (N)	6	02:18:29	00:03:00		105.752	2.537		50.7				
Harris Ch Br (N)	5	02:23:20	00:04:51		109.719	3.967		49.1				
Boca Chica Rd	4	02:29:50	00:06:30		115.487	5.768		53.2				
Rockland Dr	3	02:31:41	00:01:51		116.990	1.503		48.7				
Key Haven Blvd	2	02:35:38	00:03:57		120.875	3.885		59.0				
Cow Key Bridge (N)	1	02:37:09	00:01:31		121.981	1.106		43.8	6			3
OVERALL		-----	02:22:27	00:00:00	-----	108.119	0.000	45.5			00:08:45	3

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
SUNDAY, 03-08-15, 15:15 TO 17:55**



FILE:030213.XLS

—◆— SEG. SPEED

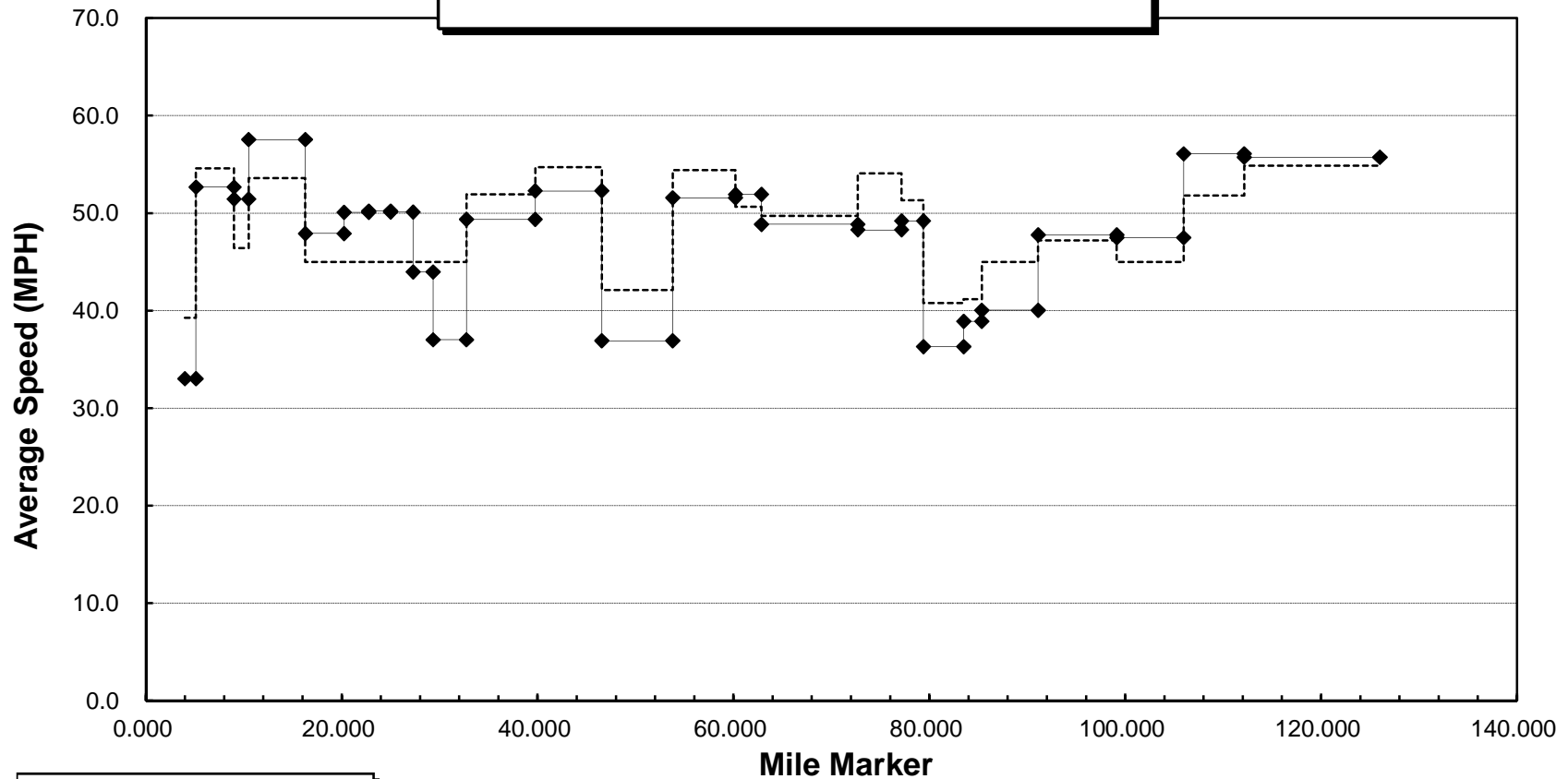
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Monday, March 9, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ COW KEY BR:	12:00:00 PM		DB = Drawbridge
FINISH TIME @ C SOUND RD:	2:33:27 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:02:02	00:02:02		1.119	1.119		33.0	10+	TS	00:00:14	5
Rockland Dr	2	00:06:28	00:04:26		5.012	3.893		52.7				-5
Boca Chica Rd	3	00:08:13	00:01:45		6.512	1.500		51.4				
Harris Ch Br (N)	4	00:14:14	00:06:01		12.282	5.770		57.5				
Bow Channel Br (N)	5	00:19:12	00:04:58		16.248	3.966		47.9	1	TS	00:00:09	
Spanish Main Dr	6	00:22:14	00:03:02		18.779	2.531		50.1				
E Shore Dr	7	00:24:53	00:02:39		20.997	2.218		50.2				
Torch-Ramrod Br (S)	8	00:27:38	00:02:45		23.293	2.296		50.1				
N Pine Ch Br (N)	9	00:30:26	00:02:48		25.345	2.052		44.0	10+			
Long Beach Dr	10	00:35:57	00:05:31		28.749	3.404		37.0		TS	00:00:10	1
7-Mile Br (S)	11	00:44:29	00:08:32		35.769	7.020		49.4				
7-Mile Br (N)	12	00:52:17	00:07:48		42.564	6.795		52.3				
Coco Plum Dr	13	01:04:04	00:11:47		49.812	7.248		36.9	10+	TS(2)	00:00:28	15
Toms Harbor Ch Br (S)	14	01:11:31	00:07:27		56.215	6.403		51.6				
Long Key Br (S)	15	01:14:34	00:03:03		58.855	2.640		51.9				
Channel #2 Br (N)	16	01:26:40	00:12:06		68.707	9.852		48.9	2			
Lignum V Br (S)	17	01:32:13	00:05:33		73.172	4.465		48.3				
Teatable Relf Br (N)	18	01:34:56	00:02:43		75.400	2.228		49.2				
Whale Harbor Br (S)	19	01:41:43	00:06:47		79.502	4.102		36.3				
Snake Creek Br (N)	20	01:44:36	00:02:53		81.372	1.870		38.9				
Ocean Blvd	21	01:53:11	00:08:35		87.101	5.729		40.0				1
Atlantic Blvd	22	02:03:16	00:10:05		95.127	8.026		47.8	10+	TS	00:00:16	9
C-905	23	02:11:54	00:08:38		101.958	6.831		47.5	10+			13
County Line sign	24	02:18:32	00:06:38		108.159	6.201		56.1				
Card Sound Rd	25	02:33:27	00:14:55		122.009	13.850		55.7				1
OVERALL		-----	02:18:32	00:00:00	-----	108.159	0.000	46.8			00:01:17	40

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
MONDAY, 03-09-15, 12:00 TO 14:35**



FILE:030213.XLS

—◆— SEG. SPEED

----- AVG. POSTED SPEED

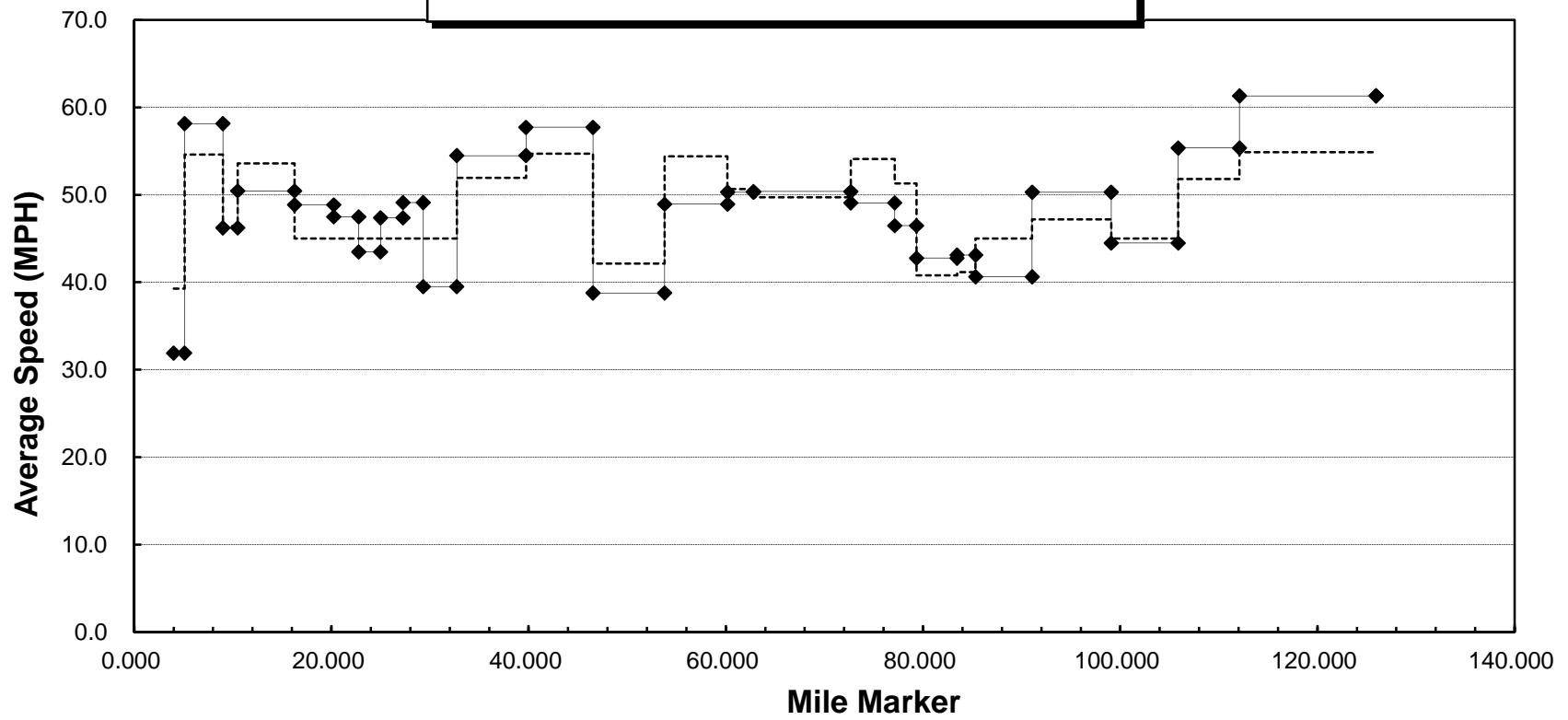


ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn
WEATHER/CONDITIONS:	Sunny/Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Monday, March 9, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ C SOUND RD:	03:45:00 PM		DB = Drawbridge
FINISH TIME @ COW KEY BR:	06:15:19 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:13:33	00:13:33		13.846	13.846		61.3				-11
C-905	24	00:21:04	00:07:31	00:01:02	20.067	6.221	0.238	55.4	10+	EV	00:01:02	
Atlantic Blvd	23	00:30:14	00:09:10		26.863	6.796		44.5	10+	TS	00:00:51	11
Ocean Blvd	22	00:39:48	00:09:34		34.882	8.019		50.3				12
Snake Creek Br (N)	21	00:48:17	00:08:29		40.624	5.742		40.6	10+			2
Whale Harbor Br (S)	20	00:50:53	00:02:36		42.492	1.868		43.1				
Teatable Relf Br (N)	19	00:56:38	00:05:45		46.590	4.098		42.8				
Lignum V Br (S)	18	00:59:31	00:02:53		48.823	2.233		46.5				
Channel #2 Br (N)	17	01:04:58	00:05:27		53.281	4.458		49.1				
Long Key Br (S)	16	01:16:42	00:11:44		63.134	9.853		50.4				
Toms Harbor Ch Br (S)	15	01:19:51	00:03:09		65.774	2.640		50.3				
Coco Plum Dr	14	01:27:41	00:07:50		72.163	6.389		48.9				-1
7-Mile Br (N)	13	01:38:55	00:11:14		79.422	7.259		38.8	6	TS(3)	00:00:35	8
7-Mile Br (S)	12	01:45:58	00:07:03		86.204	6.782		57.7				
Long Beach Dr	11	01:53:42	00:07:44		93.226	7.022		54.5				-3
N Pine Ch Br (N)	10	01:58:52	00:05:10		96.627	3.401		39.5	10+			
Torch-Ramrod Br (S)	9	02:01:22	00:02:30		98.673	2.046		49.1				
E Shore Dr	8	02:04:16	00:02:54		100.963	2.290		47.4				
Spanish Main Dr	7	02:07:20	00:03:04		103.185	2.222		43.5				
Bow Channel Br (N)	6	02:10:32	00:03:12		105.718	2.533		47.5				
Harris Ch Br (N)	5	02:15:24	00:04:52		109.681	3.963		48.9				
Boca Chica Rd	4	02:22:16	00:06:52		115.452	5.771		50.4	10+			
Rockland Dr	3	02:24:13	00:01:57		116.954	1.502		46.2	10+			
Key Haven Blvd	2	02:28:13	00:04:00		120.829	3.875		58.1				-2
Cow Key Bridge (N)	1	02:30:19	00:02:06		121.946	1.117		31.9	3	TS	00:00:30	4
OVERALL		-----	02:16:46	00:00:00	-----	108.100	0.000	47.4			00:02:58	20

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
MONDAY, 03-09-15, 15:45 TO 18:15**



FILE:030213.XLS

—◆— SEG. SPEED

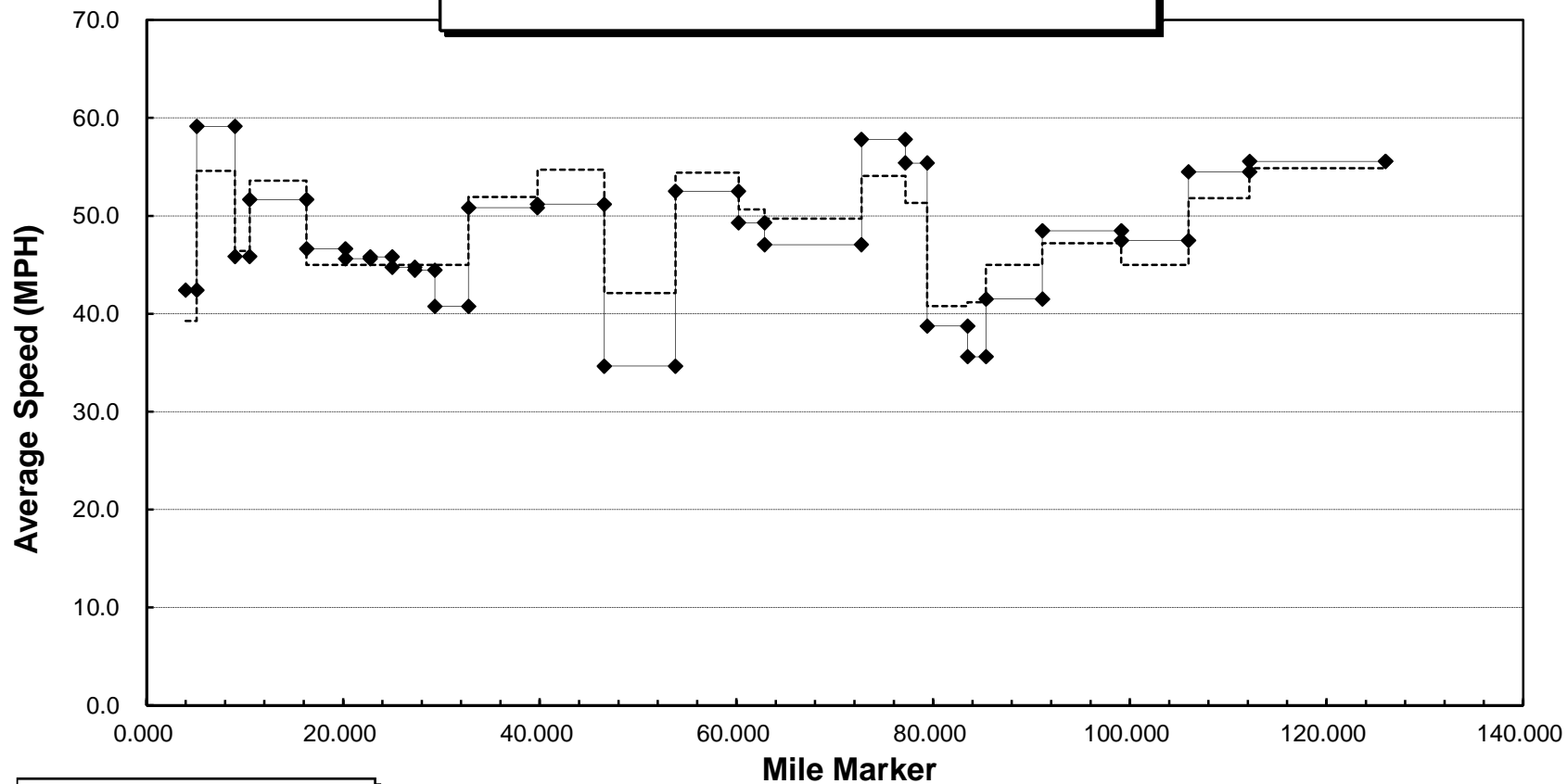
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn
WEATHER/CONDITIONS:	Sunny/Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Tuesday, March 10, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ COW KEY BR:	10:45:00 AM		DB = Drawbridge
FINISH TIME @ C SOUND RD:	01:18:29 PM		CC = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:35	00:01:35		1.119	1.119		42.4				5
Rockland Dr	2	00:05:32	00:03:57		5.012	3.893		59.1				-1
Boca Chica Rd	3	00:07:30	00:01:58		6.515	1.503		45.9				
Harris Ch Br (N)	4	00:14:12	00:06:42		12.284	5.769		51.7				
Bow Channel Br (N)	5	00:19:18	00:05:06		16.248	3.964		46.6				
Spanish Main Dr	6	00:22:38	00:03:20		18.783	2.535		45.6				
E Shore Dr	7	00:25:32	00:02:54		20.997	2.214		45.8				
Torch-Ramrod Br (S)	8	00:28:37	00:03:05		23.296	2.299		44.7				
N Pine Ch Br (N)	9	00:31:23	00:02:46		25.346	2.050		44.5				
Long Beach Dr	10	00:36:24	00:05:01		28.754	3.408		40.8				2
7-Mile Br (S)	11	00:44:41	00:08:17		35.771	7.017		50.8				
7-Mile Br (N)	12	00:52:39	00:07:58		42.568	6.797		51.2				
Coco Plum Dr	13	01:05:12	00:12:33		49.815	7.247		34.6	10+	TS(3)	00:01:29	14
Toms Harbor Ch Br (S)	14	01:12:31	00:07:19		56.217	6.402		52.5		TS	00:00:17	
Long Key Br (S)	15	01:15:44	00:03:13		58.859	2.642		49.3				
Channel #2 Br (N)	16	01:28:18	00:12:34		68.711	9.852		47.0	3			
Lignum V Br (S)	17	01:32:56	00:04:38		73.174	4.463		57.8				
Teatable Relf Br (N)	18	01:35:21	00:02:25		75.405	2.231		55.4				
Whale Harbor Br (S)	19	01:41:42	00:06:21		79.506	4.101		38.7				
Snake Creek Br (N)	20	01:44:51	00:03:09		81.375	1.869		35.6				
Ocean Blvd	21	01:53:08	00:08:17		87.104	5.729		41.5	10+			
Atlantic Blvd	22	02:03:04	00:09:56		95.130	8.026		48.5		TS	00:00:28	11
C-905	23	02:11:42	00:08:38		101.962	6.832		47.5				13
County Line sign	24	02:18:32	00:06:50		108.169	6.207		54.5	10+			
Card Sound Rd	25	02:33:29	00:14:57		122.016	13.847		55.6				-2
OVERALL		-----	02:18:32	00:00:00	-----	108.169	0.000	46.8			00:02:14	42

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
TUESDAY, 03-10-15, 10:45 TO 13:20**



FILE:030213.XLS

—◆— SEG. SPEED

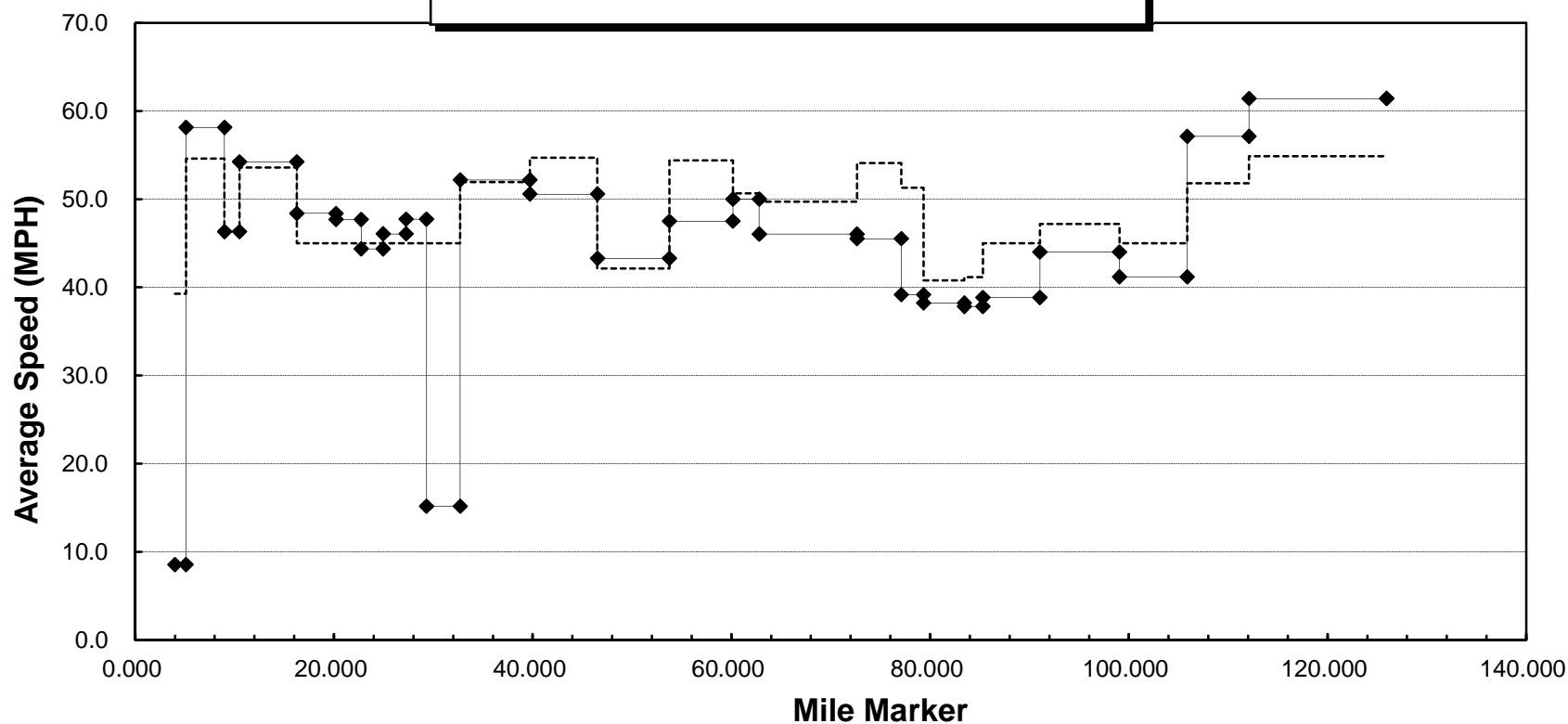
----- AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn
WEATHER/CONDITIONS:	Sunny/Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Tuesday, March 10, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ C SOUND RD:	02:30:00 PM		DB = Drawbridge
FINISH TIME @ COW KEY BR:	05:18:53 PM		CC = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:13:32	00:13:32		13.852	13.852		61.4				-3
C-905	24	00:20:04	00:06:32		20.073	6.221		57.1				
Atlantic Blvd	23	00:29:58	00:09:54		26.870	6.797		41.2	10+	TS	00:01:12	7
Ocean Blvd	22	00:40:54	00:10:56		34.888	8.018		44.0	10+	TS	00:00:30	6
Snake Creek Br (N)	21	00:49:46	00:08:52		40.627	5.739		38.8	10+			6
Whale Harbor Br (S)	20	00:52:44	00:02:58		42.498	1.871		37.8				
Teatable Relf Br (N)	19	00:59:10	00:06:26		46.596	4.098		38.2	10+			
Lignum V Br (S)	18	01:02:35	00:03:25		48.827	2.231		39.2				
Channel #2 Br (N)	17	01:08:28	00:05:53		53.290	4.463		45.5	10+			
Long Key Br (S)	16	01:21:18	00:12:50		63.140	9.850		46.1	10+			
Toms Harbor Ch Br (S)	15	01:24:28	00:03:10		65.779	2.639		50.0				
Coco Plum Dr	14	01:32:32	00:08:04		72.166	6.387		47.5	10+			
7-Mile Br (N)	13	01:42:36	00:10:04		79.428	7.262		43.3	6			14
7-Mile Br (S)	12	01:50:39	00:08:03		86.213	6.785		50.6	10+			
Long Beach Dr	11	01:58:43	00:08:04		93.227	7.014		52.2				
N Pine Ch Br (N)	10	02:12:09	00:13:26		96.627	3.400		15.2	10+	TS	00:10:49	
Torch-Ramrod Br (S)	9	02:14:44	00:02:35		98.682	2.055		47.7				
E Shore Dr	8	02:17:43	00:02:59		100.972	2.290		46.1				
Spanish Main Dr	7	02:20:43	00:03:00		103.190	2.218		44.4				
Bow Channel Br (N)	6	02:23:54	00:03:11		105.721	2.531		47.7				
Harris Ch Br (N)	5	02:28:49	00:04:55		109.686	3.965		48.4				
Boca Chica Rd	4	02:35:12	00:06:23		115.456	5.770		54.2				
Rockland Dr	3	02:37:09	00:01:57		116.961	1.505		46.3				
Key Haven Blvd	2	02:41:09	00:04:00		120.836	3.875		58.1				4
Cow Key Bridge (N)	1	02:48:53	00:07:44		121.939	1.103		8.6	10+	TS(3)	00:06:44	
OVERALL		-----	02:35:21	00:00:00	-----	108.087	0.000	41.7			00:19:15	34

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
TUESDAY, 03-10-15, 14:30 TO 17:20**



FILE:030213.XLS

—◆— SEG. SPEED

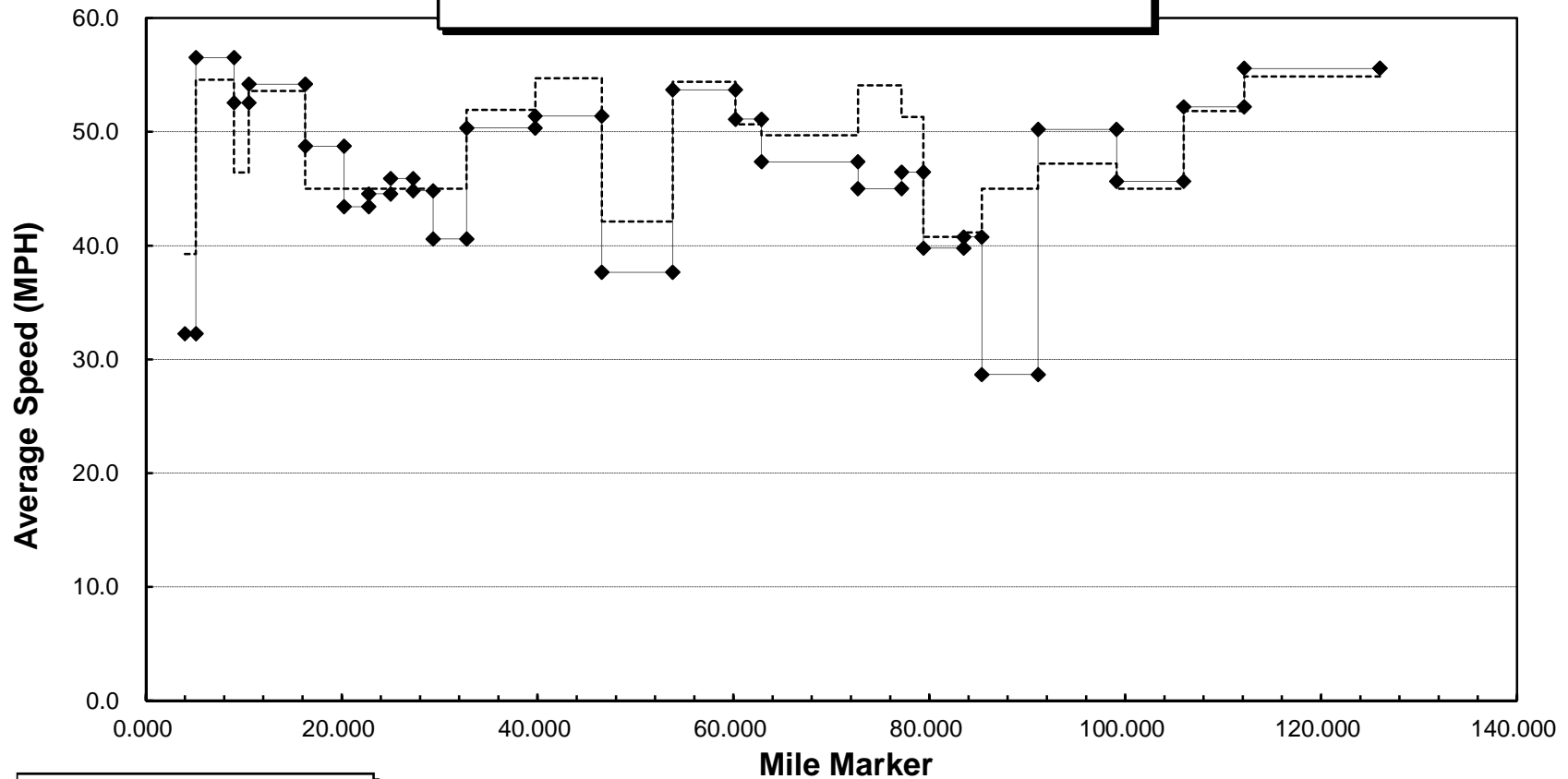
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Wednesday, March 11, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ COW KEY BR:	10:15:00 AM		DB = Drawbridge
FINISH TIME @ C SOUND RD:	12:52:28 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:02:05	00:02:05		1.120	1.120		32.3	7	TS	00:00:21	1
Rockland Dr	2	00:06:13	00:04:08		5.014	3.894		56.5				3
Boca Chica Rd	3	00:07:56	00:01:43		6.518	1.504		52.6				
Harris Ch Br (N)	4	00:14:19	00:06:23		12.283	5.765		54.2				
Bow Channel Br (N)	5	00:19:12	00:04:53		16.250	3.967		48.7				
Spanish Main Dr	6	00:22:42	00:03:30		18.783	2.533		43.4				
E Shore Dr	7	00:25:41	00:02:59		20.998	2.215		44.5				
Torch-Ramrod Br (S)	8	00:28:41	00:03:00		23.293	2.295		45.9				
N Pine Ch Br (N)	9	00:31:26	00:02:45		25.347	2.054		44.8				
Long Beach Dr	10	00:36:28	00:05:02		28.751	3.404		40.6		TS	00:00:12	6
7-Mile Br (S)	11	00:44:50	00:08:22		35.770	7.019		50.3				1
7-Mile Br (N)	12	00:52:46	00:07:56		42.564	6.794		51.4				
Coco Plum Dr	13	01:04:19	00:11:33		49.813	7.249		37.7	10+	TS(4)	00:01:09	5
Toms Harbor Ch Br (S)	14	01:11:28	00:07:09		56.213	6.400		53.7				
Long Key Br (S)	15	01:14:34	00:03:06		58.854	2.641		51.1				
Channel #2 Br (N)	16	01:27:03	00:12:29		68.709	9.855		47.4				
Lignum V Br (S)	17	01:33:00	00:05:57		73.171	4.462		45.0				
Teatable Relf Br (N)	18	01:35:53	00:02:53		75.403	2.232		46.4				
Whale Harbor Br (S)	19	01:42:04	00:06:11		79.502	4.099		39.8				
Snake Creek Br (N)	20	01:44:49	00:02:45		81.370	1.868		40.8				
Ocean Blvd	21	01:56:49	00:12:00		87.105	5.735		28.7		CG	00:01:51	5
Atlantic Blvd	22	02:06:24	00:09:35		95.126	8.021		50.2	10+	TS(2)	00:01:58	13
C-905	23	02:15:23	00:08:59		101.959	6.833		45.6				8
County Line sign	24	02:22:31	00:07:08		108.165	6.206		52.2				
Card Sound Rd	25	02:37:28	00:14:57		122.013	13.848		55.6				-3
OVERALL		-----	02:22:31	00:00:00	-----	108.165	0.000	45.5			00:05:31	39

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
WEDNESDAY, 03-11-15, 10:15 TO 12:55**



FILE:030213.XLS

—◆— SEG. SPEED

----- AVG. POSTED SPEED

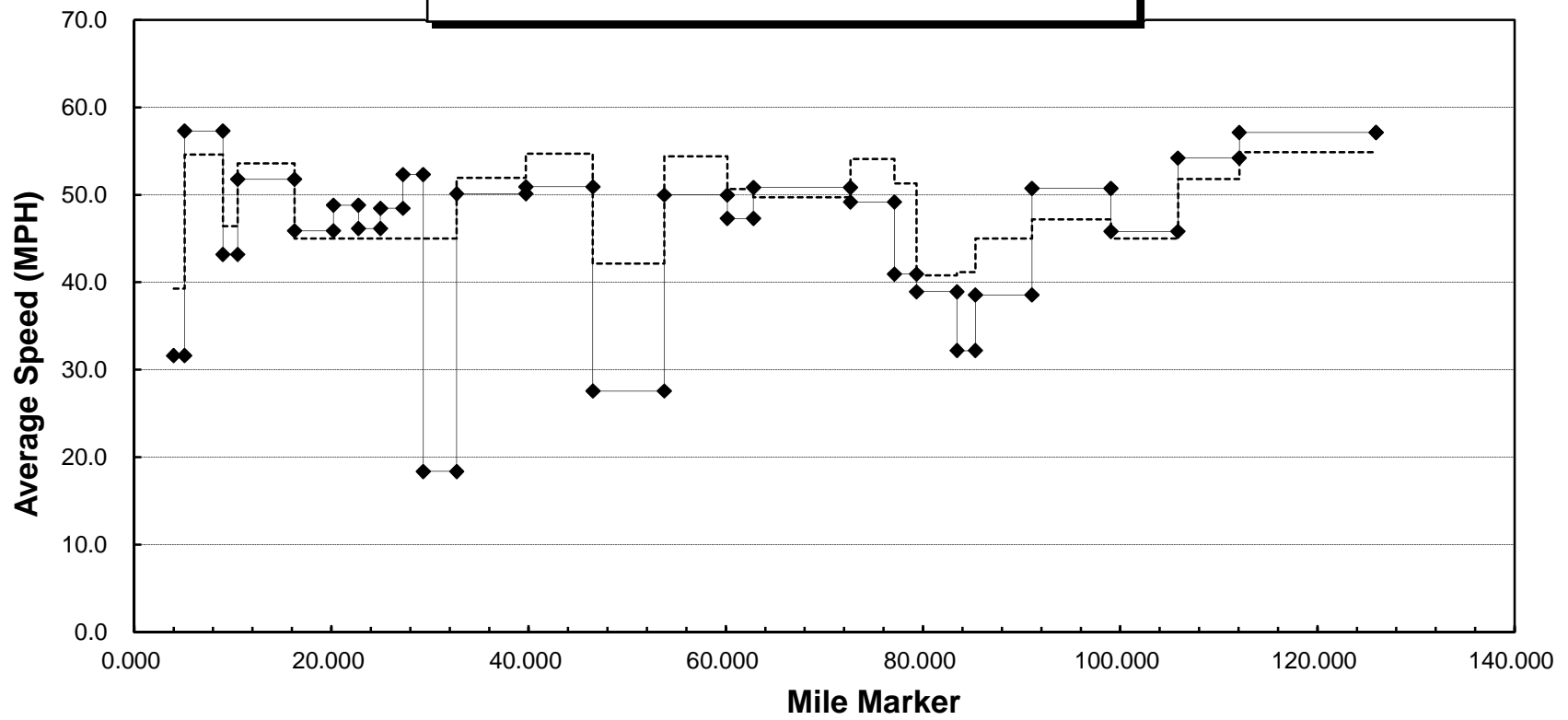


ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Wednesday, March 11, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ C SOUND RD:	01:45:00 PM		DB = Drawbridge
FINISH TIME @ COW KEY BR:	04:32:16 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:14:33	00:14:33		13.854	13.854		57.1	10+			
C-905	24	00:21:26	00:06:53		20.074	6.220		54.2				
Atlantic Blvd	23	00:30:20	00:08:54		26.871	6.797		45.8	10+	TS	00:00:17	12
Ocean Blvd	22	00:39:49	00:09:29		34.888	8.017		50.7	10+			8
Snake Creek Br (N)	21	00:50:24	00:10:35	00:02:16	40.623	5.735	0.392	38.5	10+	CS	00:02:16	
Whale Harbor Br (S)	20	00:53:54	00:03:30		42.500	1.877		32.2	10+	CG	00:00:22	
Teatable Relf Br (N)	19	01:00:13	00:06:19		46.598	4.098		38.9	10+			
Lignum V Br (S)	18	01:03:29	00:03:16		48.827	2.229		40.9	4			
Channel #2 Br (N)	17	01:08:56	00:05:27		53.293	4.466		49.2	10+			
Long Key Br (S)	16	01:20:33	00:11:37		63.138	9.845		50.8	6			
Toms Harbor Ch Br (S)	15	01:23:54	00:03:21		65.778	2.640		47.3				
Coco Plum Dr	14	01:31:34	00:07:40		72.164	6.386		50.0	10+			
7-Mile Br (N)	13	01:48:28	00:16:54	00:02:02	79.422	7.258	0.428	27.6	10+	TS(4), EV/AC,LT	00:05:32	9
7-Mile Br (S)	12	01:56:28	00:08:00		86.212	6.790		50.9				
Long Beach Dr	11	02:04:52	00:08:24		93.227	7.015		50.1	10+			1
N Pine Ch Br (N)	10	02:15:58	00:11:06		96.626	3.399		18.4	10+	TS	00:07:38	
Torch-Ramrod Br (S)	9	02:18:19	00:02:21		98.675	2.049		52.3				
E Shore Dr	8	02:21:09	00:02:50		100.964	2.289		48.5				
Spanish Main Dr	7	02:24:02	00:02:53		103.181	2.217		46.1				
Bow Channel Br (N)	6	02:27:09	00:03:07		105.716	2.535		48.8	10+			
Harris Ch Br (N)	5	02:32:20	00:05:11		109.680	3.964		45.9				
Boca Chica Rd	4	02:39:01	00:06:41		115.447	5.767		51.8				
Rockland Dr	3	02:41:06	00:02:05		116.946	1.499		43.2				
Key Haven Blvd	2	02:45:10	00:04:04		120.830	3.884		57.3				3
Cow Key Bridge (N)	1	02:47:16	00:02:06		121.937	1.107		31.6	10+	TS	00:00:26	5
OVERALL		-----	02:32:43	00:04:18	-----	108.083	0.820	43.4			00:16:31	38

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
WEDNESDAY, 03-11-15, 13:45 TO 16:35**



FILE:030213.XLS

—◆— SEG. SPEED

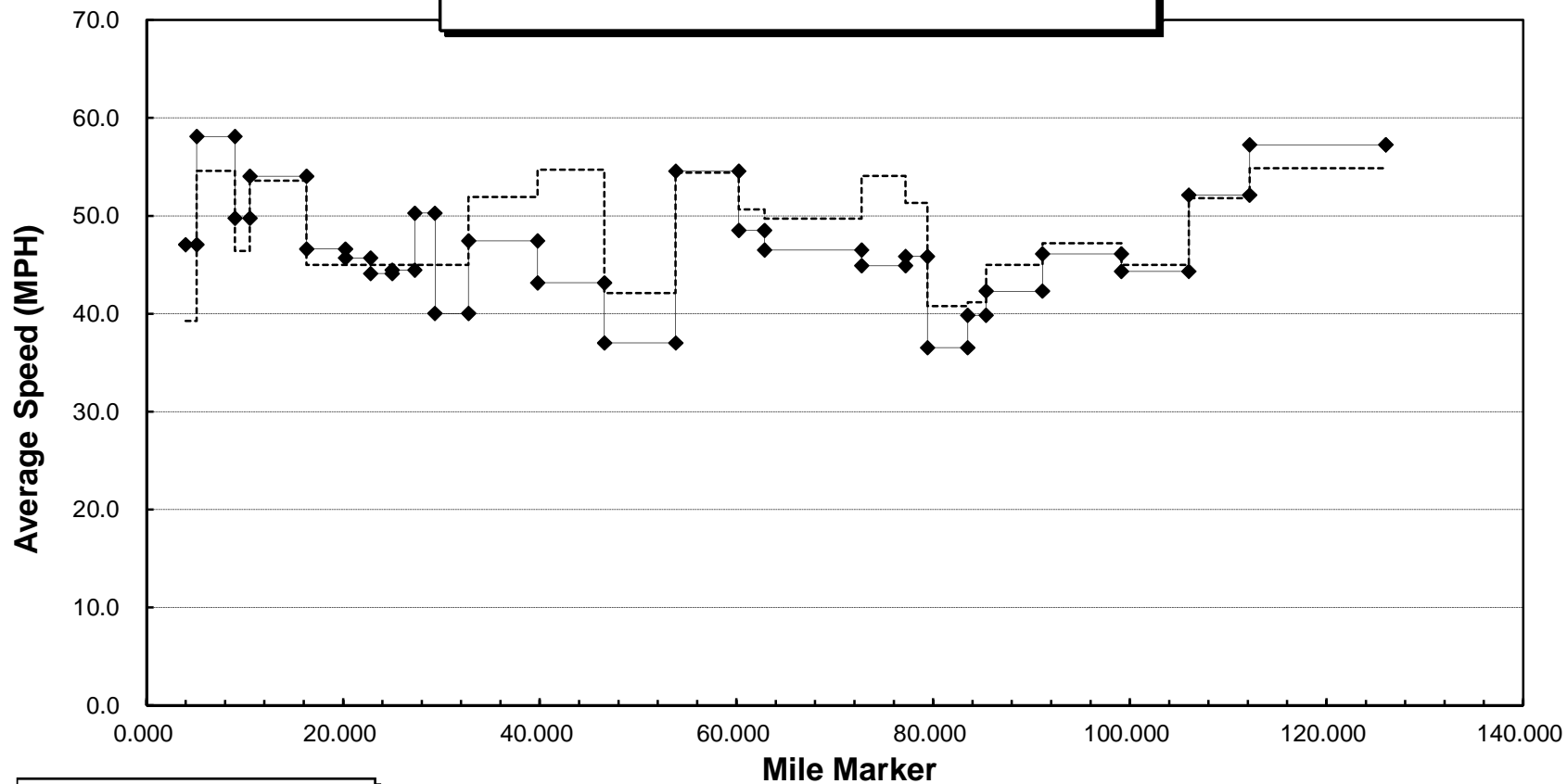
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Thursday, March 12, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ COW KEY BR:	10:00:00 AM		DB = Drawbridge
FINISH TIME @ C SOUND RD:	12:36:48 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:26	00:01:26		1.124	1.124		47.1				1
Rockland Dr	2	00:05:27	00:04:01		5.014	3.890		58.1				1
Boca Chica Rd	3	00:07:16	00:01:49		6.520	1.506		49.7				
Harris Ch Br (N)	4	00:13:40	00:06:24		12.285	5.765		54.0				
Bow Channel Br (N)	5	00:18:46	00:05:06		16.247	3.962		46.6				
Spanish Main Dr	6	00:22:06	00:03:20		18.785	2.538		45.7				
E Shore Dr	7	00:25:07	00:03:01		21.002	2.217		44.1				
Torch-Ramrod Br (S)	8	00:28:13	00:03:06		23.299	2.297		44.5				
N Pine Ch Br (N)	9	00:30:40	00:02:27		25.352	2.053		50.3				
Long Beach Dr	10	00:35:46	00:05:06		28.755	3.403		40.0		LT	00:00:05	2
7-Mile Br (S)	11	00:44:39	00:08:53		35.779	7.024		47.4				3
7-Mile Br (N)	12	00:54:06	00:09:27		42.578	6.799		43.2				
Coco Plum Dr	13	01:05:50	00:11:44		49.819	7.241		37.0	10+	TS(3)	00:01:26	16
Toms Harbor Ch Br (S)	14	01:12:53	00:07:03		56.229	6.410		54.6				
Long Key Br (S)	15	01:16:09	00:03:16		58.870	2.641		48.5				
Channel #2 Br (N)	16	01:28:52	00:12:43		68.728	9.858		46.5	10+			
Lignum V Br (S)	17	01:34:50	00:05:58		73.193	4.465		44.9	7			
Teatable Relf Br (N)	18	01:37:45	00:02:55		75.422	2.229		45.9				
Whale Harbor Br (S)	19	01:44:29	00:06:44		79.522	4.100		36.5				
Snake Creek Br (N)	20	01:47:18	00:02:49		81.392	1.870		39.8				
Ocean Blvd	21	01:55:26	00:08:08		87.125	5.733		42.3				10
Atlantic Blvd	22	02:05:53	00:10:27		95.157	8.032		46.1	10+	TS	00:00:46	6
C-905	23	02:15:08	00:09:15		101.988	6.831		44.3	5	TS	00:00:36	-1
County Line sign	24	02:22:17	00:07:09		108.198	6.210		52.1				1
Card Sound Rd	25	02:36:48	00:14:31		122.047	13.849		57.2				-4
OVERALL		-----	02:22:17	00:00:00	-----	108.198	0.000	45.6			00:02:53	35

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
THURSDAY, 03-12-15, 10:00 TO 12:40**



FILE:030213.XLS

—◆— SEG. SPEED

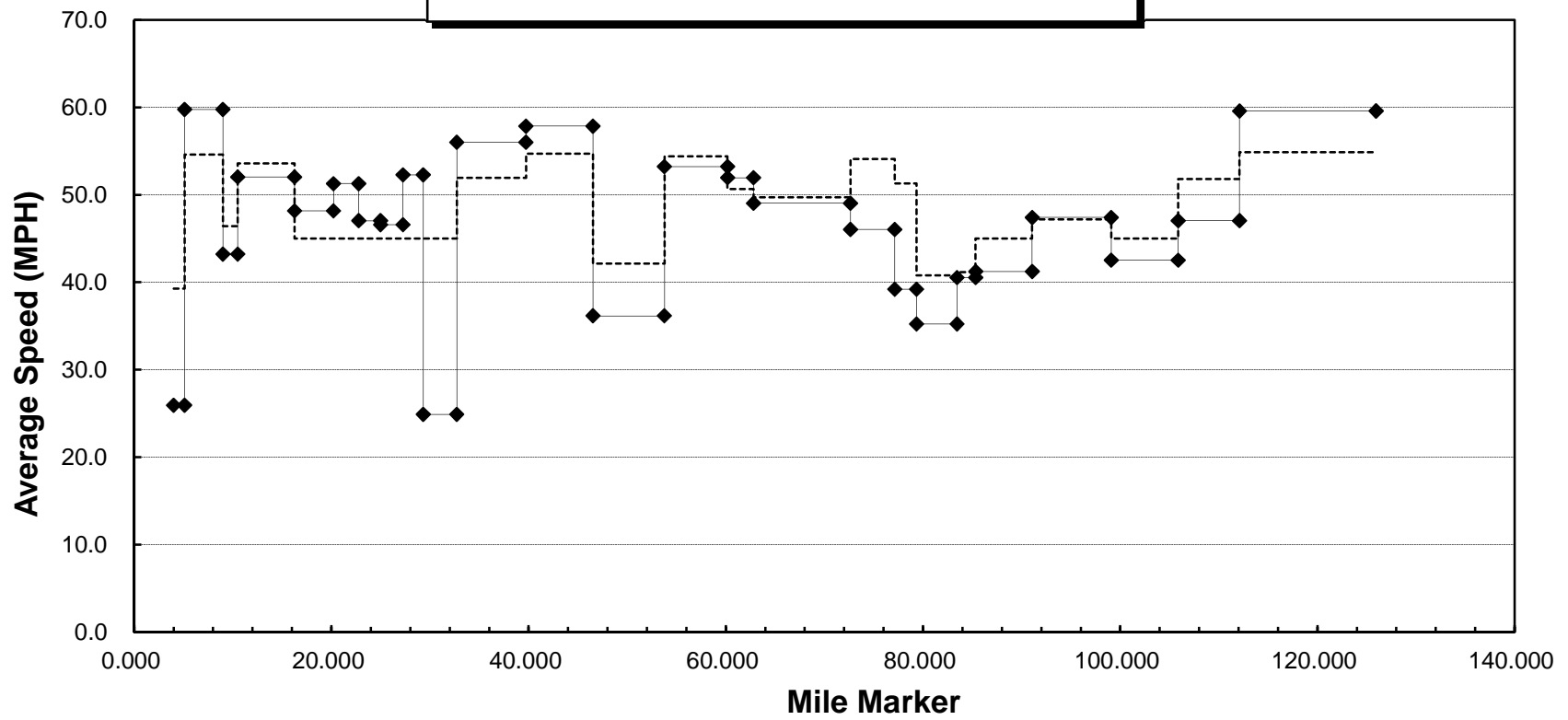
----- AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	AE		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Cloudy	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Thursday, March 12, 2015	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ C SOUND RD:	01:45:00 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ COW KEY BR:	04:22:17 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:13:57	00:13:57		13.856	13.856		59.6				-5
C-905	24	00:21:53	00:07:56		20.078	6.222		47.1	10+			7
Atlantic Blvd	23	00:31:28	00:09:35		26.873	6.795		42.5	10+	TS(2)	00:00:50	10
Ocean Blvd	22	00:41:37	00:10:09		34.895	8.022		47.4	7	TS	00:10:00	2
Snake Creek Br (N)	21	00:49:58	00:08:21		40.633	5.738		41.2	10+			
Whale Harbor Br (S)	20	00:52:44	00:02:46		42.503	1.870		40.6				
Teatable Relf Br (N)	19	00:59:43	00:06:59		46.603	4.100		35.2	10+			
Lignum V Br (S)	18	01:03:08	00:03:25		48.835	2.232		39.2				
Channel #2 Br (N)	17	01:08:57	00:05:49		53.298	4.463		46.0	10+			
Long Key Br (S)	16	01:21:00	00:12:03		63.146	9.848		49.0				
Toms Harbor Ch Br (S)	15	01:24:03	00:03:03		65.787	2.641		52.0				
Coco Plum Dr	14	01:31:15	00:07:12		72.174	6.387		53.2				
7-Mile Br (N)	13	01:43:18	00:12:03		79.435	7.261		36.2	10+	CG	00:00:54	13
7-Mile Br (S)	12	01:50:20	00:07:02		86.217	6.782		57.9				
Long Beach Dr	11	01:57:51	00:07:31		93.234	7.017		56.0				
N Pine Ch Br (N)	10	02:06:03	00:08:12		96.635	3.401		24.9	10+	TS	00:04:05	
Torch-Ramrod Br (S)	9	02:08:24	00:02:21		98.683	2.048		52.3				
E Shore Dr	8	02:11:21	00:02:57		100.973	2.290		46.6				
Spanish Main Dr	7	02:14:11	00:02:50		103.194	2.221		47.0				
Bow Channel Br (N)	6	02:17:09	00:02:58		105.730	2.536		51.3				
Harris Ch Br (N)	5	02:22:05	00:04:56		109.691	3.961		48.2	10+			
Boca Chica Rd	4	02:28:44	00:06:39		115.459	5.768		52.0				
Rockland Dr	3	02:30:49	00:02:05		116.959	1.500		43.2				
Key Haven Blvd	2	02:34:43	00:03:54		120.844	3.885		59.8				-1
Cow Key Bridge (N)	1	02:37:17	00:02:34		121.954	1.110		25.9	10+	TS(2)	00:00:52	3
OVERALL		-----	02:23:20	00:00:00	-----	108.098	0.000	45.3			00:16:41	29

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
THURSDAY, 03-12-15, 13:45 TO 16:25**



FILE:030213.XLS

—◆— SEG. SPEED

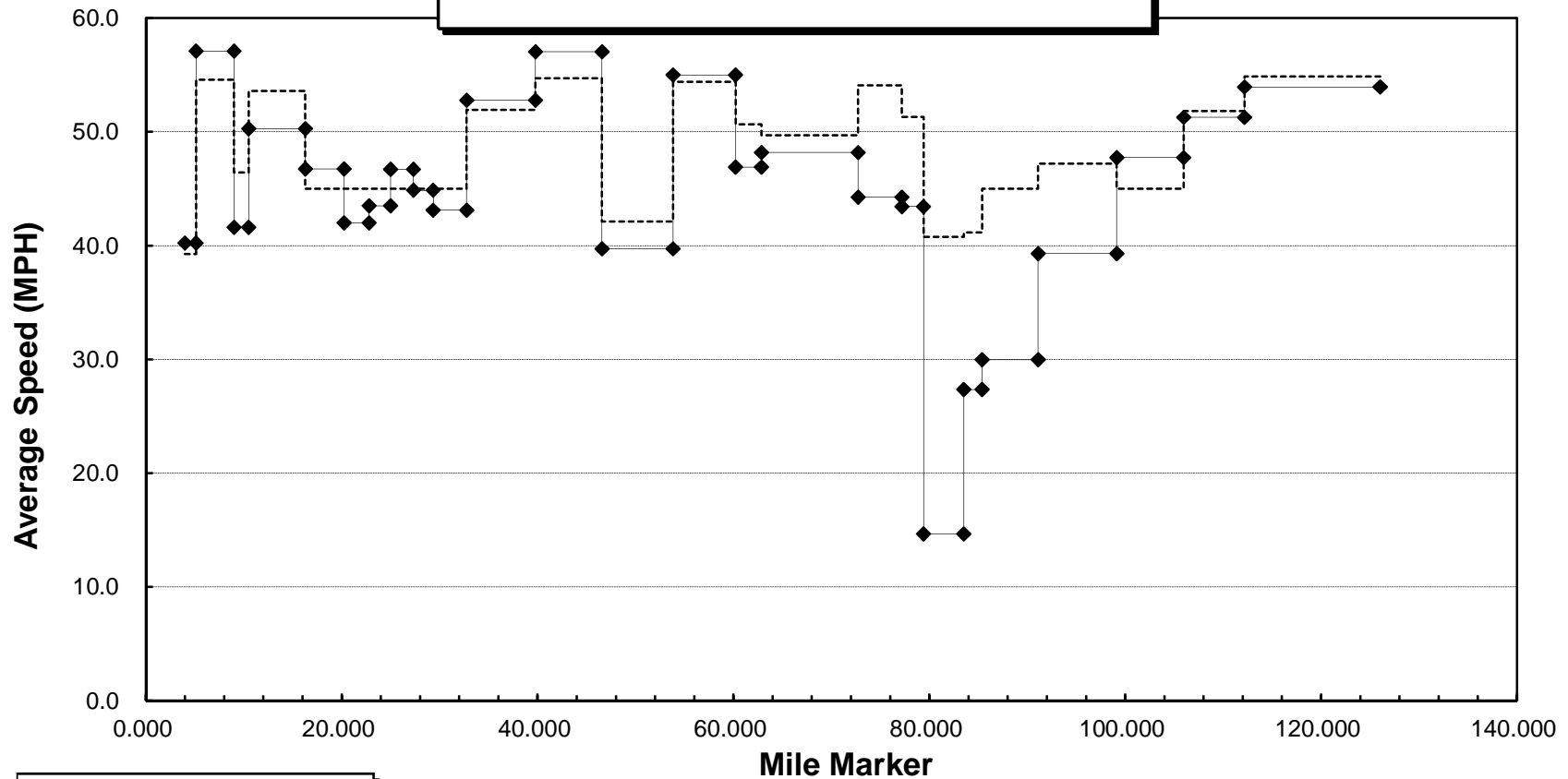
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Friday, March 13, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ COW KEY BR:	10:30:00 AM		DB = Drawbridge
FINISH TIME @ C SOUND RD:	01:20:42 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:41	00:01:41		1.128	1.128		40.2				4
Rockland Dr	2	00:05:46	00:04:05		5.014	3.886		57.1				
Boca Chica Rd	3	00:07:56	00:02:10		6.517	1.503		41.6				
Harris Ch Br (N)	4	00:14:49	00:06:53		12.284	5.767		50.3				
Bow Channel Br (N)	5	00:19:55	00:05:06		16.256	3.972		46.7				
Spanish Main Dr	6	00:23:32	00:03:37		18.787	2.531		42.0				
E Shore Dr	7	00:26:35	00:03:03		20.998	2.211		43.5				
Torch-Ramrod Br (S)	8	00:29:34	00:02:59		23.321	2.323		46.7				
N Pine Ch Br (N)	9	00:32:17	00:02:43		25.352	2.031		44.9				
Long Beach Dr	10	00:37:01	00:04:44		28.754	3.402		43.1				2
7-Mile Br (S)	11	00:45:00	00:07:59		35.777	7.023		52.8	2			-1
7-Mile Br (N)	12	00:52:09	00:07:09		42.574	6.797		57.0				
Coco Plum Dr	13	01:03:06	00:10:57		49.823	7.249		39.7	9	TS(2)	00:00:31	33
Toms Harbor Ch Br (S)	14	01:10:05	00:06:59		56.225	6.402		55.0				
Long Key Br (S)	15	01:13:28	00:03:23		58.869	2.644		46.9	10+			
Channel #2 Br (N)	16	01:25:44	00:12:16		68.722	9.853		48.2	10+			
Lignum V Br (S)	17	01:31:47	00:06:03		73.185	4.463		44.3	10+			
Teatable Relf Br (N)	18	01:34:52	00:03:05		75.417	2.232		43.4				
Whale Harbor Br (S)	19	01:51:38	00:16:46		79.514	4.097		14.7	10+	CG(3)	00:13:18	
Snake Creek Br (N)	20	01:55:44	00:04:06		81.383	1.869		27.4	10+			
Ocean Blvd	21	02:07:12	00:11:28		87.111	5.728		30.0	10+	CG,LT,TS	00:03:16	
Atlantic Blvd	22	02:19:27	00:12:15		95.137	8.026		39.3	10+	TS	00:02:58	8
C-905	23	02:28:02	00:08:35		101.968	6.831		47.8				13
County Line sign	24	02:35:18	00:07:16		108.178	6.210		51.3				
Card Sound Rd	25	02:50:42	00:15:24		122.023	13.845		53.9				
OVERALL		-----	02:35:18	00:00:00	-----	108.178	0.000	41.8			00:20:03	59

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
FRIDAY, 03-13-15, 10:30 TO 13:20**



FILE:030213.XLS

—◆— SEG. SPEED

----- AVG. POSTED SPEED

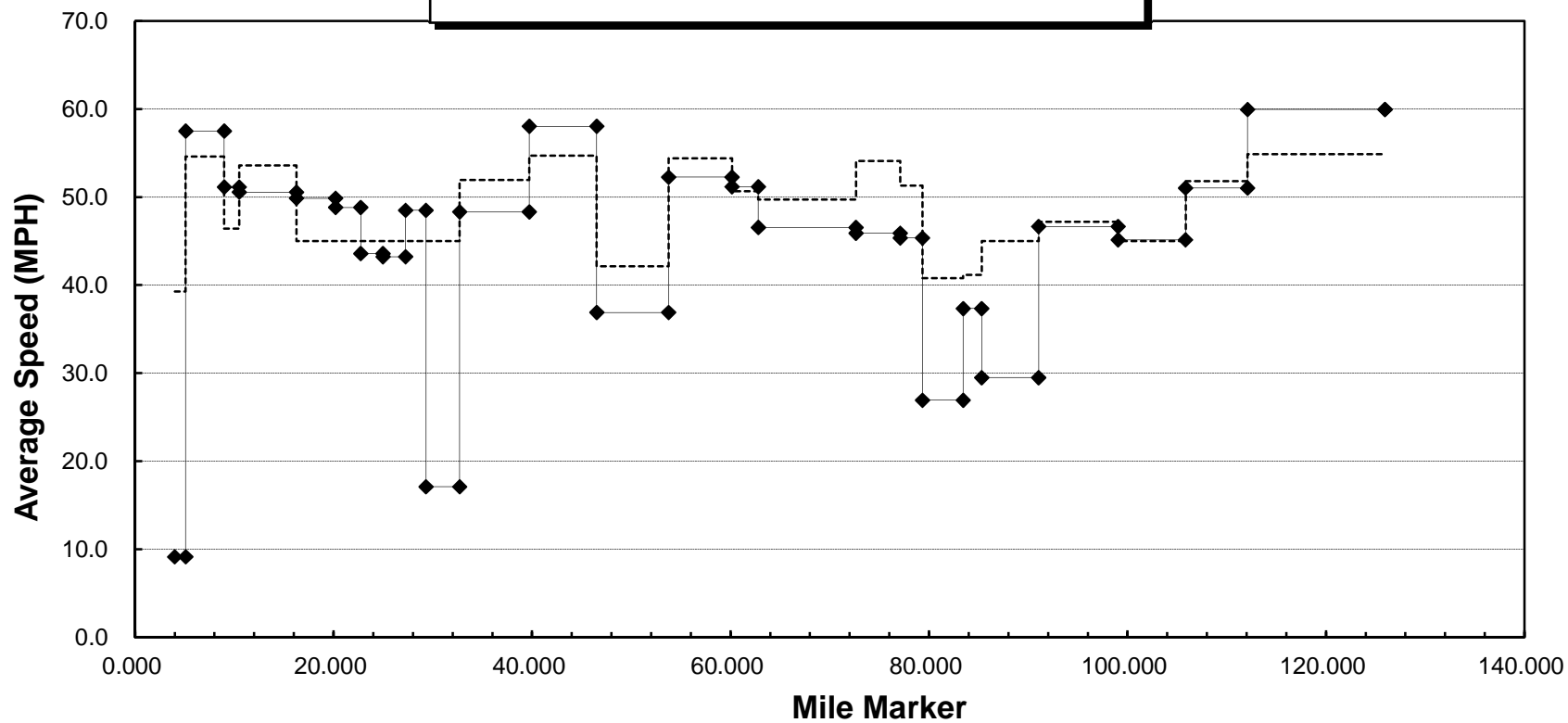


ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Friday, March 13, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ C SOUND RD:	02:15:00 PM		DB = Drawbridge
FINISH TIME @ COW KEY BR:	05:15:44 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:13:52	00:13:52		13.855	13.855		59.9				-13
C-905	24	00:21:11	00:07:19		20.076	6.221		51.0				
Atlantic Blvd	23	00:30:13	00:09:02		26.873	6.797		45.1	10+	TS	00:00:20	8
Ocean Blvd	22	00:40:32	00:10:19		34.896	8.023		46.7	10+			6
Snake Creek Br (N)	21	00:59:03	00:18:31	00:11:30	40.633	5.737	2.287	29.5	10+	TS, AC(4)	00:11:59	12
Whale Harbor Br (S)	20	01:03:41	00:04:38	00:02:29	42.502	1.869	0.531	37.3	10+	CS	00:02:29	
Teatable Relf Br (N)	19	01:12:49	00:09:08		46.601	4.099		26.9	10+	CG(2)	00:04:13	
Lignum V Br (S)	18	01:15:46	00:02:57		48.831	2.230		45.4				
Channel #2 Br (N)	17	01:21:36	00:05:50		53.293	4.462		45.9	10+	LT	00:00:12	
Long Key Br (S)	16	01:34:18	00:12:42		63.143	9.850		46.5				
Toms Harbor Ch Br (S)	15	01:37:24	00:03:06		65.786	2.643		51.2				
Coco Plum Dr	14	01:44:44	00:07:20		72.174	6.388		52.3				
7-Mile Br (N)	13	01:56:32	00:11:48		79.428	7.254		36.9	10+	TS(3)	00:00:49	13
7-Mile Br (S)	12	02:03:33	00:07:01		86.213	6.785		58.0				
Long Beach Dr	11	02:12:16	00:08:43		93.229	7.016		48.3	10+			-3
N Pine Ch Br (N)	10	02:24:12	00:11:56		96.631	3.402		17.1	10+	TS	00:08:32	
Torch-Ramrod Br (S)	9	02:26:44	00:02:32		98.679	2.048		48.5				
E Shore Dr	8	02:29:55	00:03:11		100.972	2.293		43.2	10+			
Spanish Main Dr	7	02:32:58	00:03:03		103.188	2.216		43.6				
Bow Channel Br (N)	6	02:36:05	00:03:07		105.723	2.535		48.8				
Harris Ch Br (N)	5	02:40:51	00:04:46		109.684	3.961		49.9				
Boca Chica Rd	4	02:47:42	00:06:51		115.454	5.770		50.5				
Rockland Dr	3	02:49:28	00:01:46		116.959	1.505		51.1				
Key Haven Blvd	2	02:53:31	00:04:03		120.840	3.881		57.5				4
Cow Key Bridge (N)	1	03:00:44	00:07:13		121.941	1.101		9.2	10+	TS(2)	00:06:04	15
OVERALL		-----	02:46:52	00:13:59	-----	108.086	2.818	41.3			00:34:38	42

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
FRIDAY, 03-13-15, 14:15 TO 17:15**



FILE:030213.XLS

—◆— SEG. SPEED

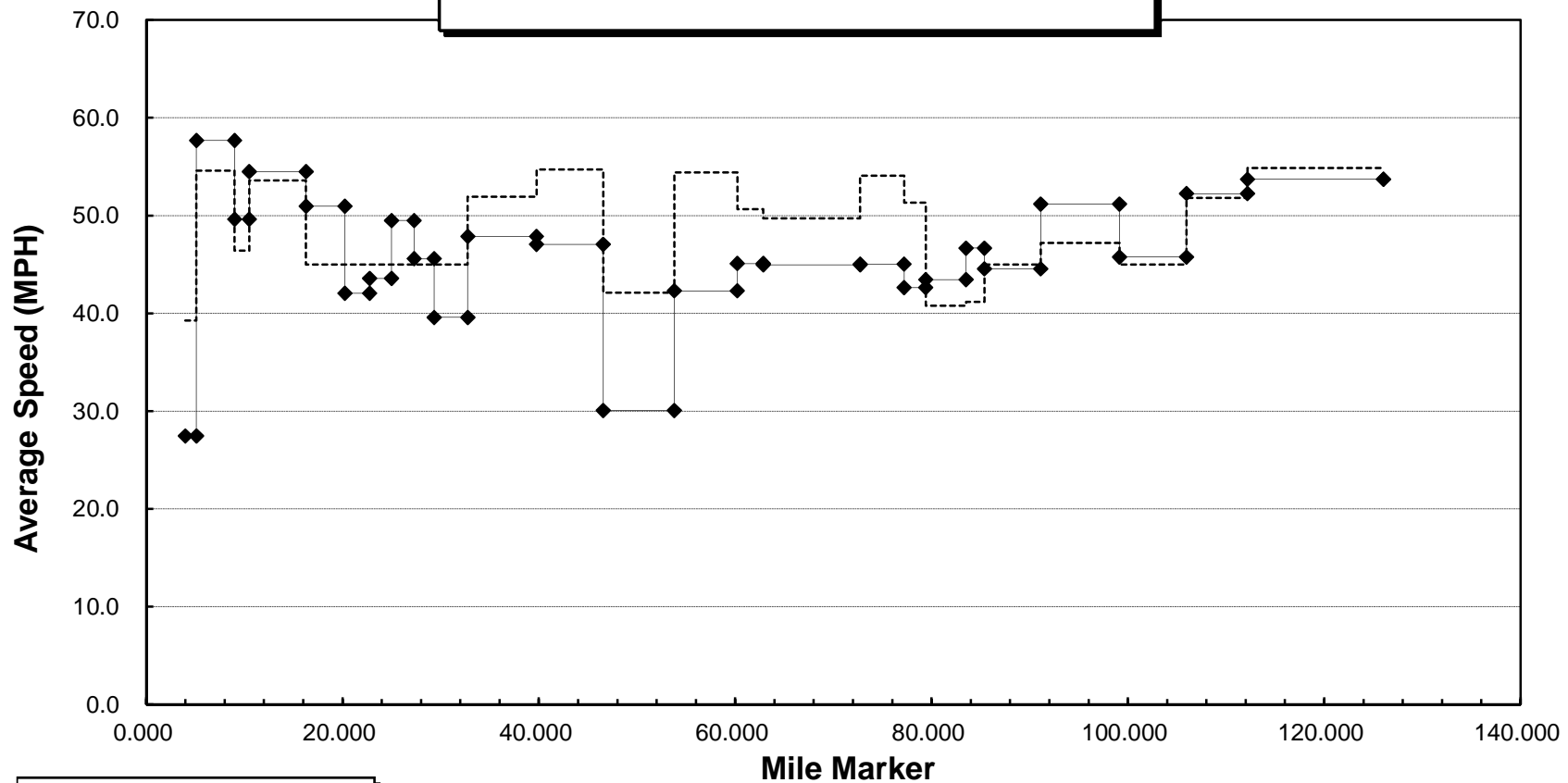
----- AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Saturday, March 14, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ COW KEY BR:	11:00:00 AM		DB = Drawbridge
FINISH TIME @ C SOUND RD:	01:40:10 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:02:27	00:02:27		1.121	1.121		27.5	10+	TS	00:00:30	-3
Rockland Dr	2	00:06:30	00:04:03		5.014	3.893		57.7				1
Boca Chica Rd	3	00:08:19	00:01:49		6.516	1.502		49.6				
Harris Ch Br (N)	4	00:14:40	00:06:21		12.284	5.768		54.5				
Bow Channel Br (N)	5	00:19:20	00:04:40		16.247	3.963		51.0				
Spanish Main Dr	6	00:22:57	00:03:37		18.782	2.535		42.1				
E Shore Dr	7	00:26:00	00:03:03		20.997	2.215		43.6				
Torch-Ramrod Br (S)	8	00:28:47	00:02:47		23.293	2.296		49.5				
N Pine Ch Br (N)	9	00:31:29	00:02:42		25.344	2.051		45.6				
Long Beach Dr	10	00:36:39	00:05:10		28.753	3.409		39.6	10+			1
7-Mile Br (S)	11	00:45:27	00:08:48		35.773	7.020		47.9				2
7-Mile Br (N)	12	00:54:07	00:08:40		42.569	6.796		47.0				
Coco Plum Dr	13	01:08:35	00:14:28		49.818	7.249		30.1	10+	TS(2)	00:03:59	11
Toms Harbor Ch Br (S)	14	01:17:40	00:09:05		56.221	6.403		42.3				8
Long Key Br (S)	15	01:21:11	00:03:31		58.864	2.643		45.1				
Channel #2 Br (N)	16	01:34:20	00:13:09		68.720	9.856		45.0	4			
Lignum V Br (S)	17	01:40:19	00:05:59		73.210	4.490		45.0				
Teatable Relf Br (N)	18	01:43:25	00:03:06		75.412	2.202		42.6				
Whale Harbor Br (S)	19	01:49:05	00:05:40		79.515	4.103		43.4				
Snake Creek Br (N)	20	01:51:29	00:02:24		81.382	1.867		46.7				
Ocean Blvd	21	01:59:12	00:07:43		87.112	5.730		44.6				5
Atlantic Blvd	22	02:08:37	00:09:25		95.142	8.030		51.2				-2
C-905	23	02:17:34	00:08:57		101.969	6.827		45.8				28
County Line sign	24	02:24:42	00:07:08		108.179	6.210		52.2				
Card Sound Rd	25	02:40:10	00:15:28		122.028	13.849		53.7				2
OVERALL		-----	02:24:42	00:00:00	-----	108.179	0.000	44.9			00:04:29	53

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS  
SATURDAY, 03-14-15, 11:00 TO 13:40**



FILE:030213.XLS

—◆— SEG. SPEED

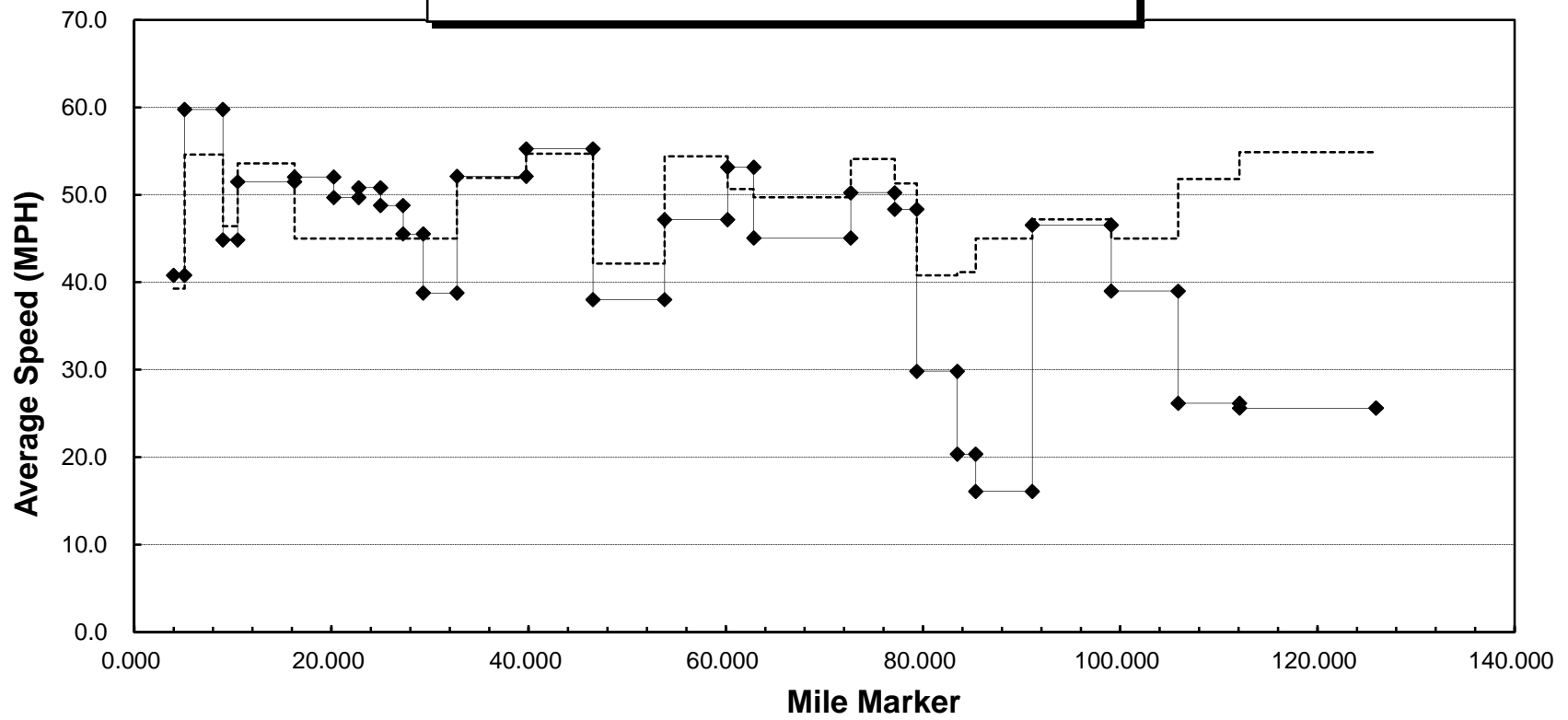
----- AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn
DAY/DATE:	Saturday, March 14, 2015	Delay ends @ 15 mph	TS = Traffic Signal
START TIME @ C SOUND RD:	02:45:00 PM		DB = Drawbridge
FINISH TIME @ COW KEY BR:	06:12:41 PM		CG = Congestion
			CS = Construction
			SB = School Bus
			EV = Emergency Vehicle
			AC = Accident
			* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:32:26	00:32:26		13.845	13.845		25.6	10+	CG(3)	00:18:22	-10
C-905	24	00:46:42	00:14:16		20.067	6.222		26.2	10+	CG(2)	00:04:09	
Atlantic Blvd	23	01:06:48	00:20:06	00:12:57	26.862	6.795	2.147	39.0	10+	AC(3)	00:12:57	10
Ocean Blvd	22	01:17:08	00:10:20		34.877	8.015		46.5	6	TS	00:00:15	11
Snake Creek Br (N)	21	01:38:32	00:21:24		40.615	5.738		16.1	10+	TS,CG(3)	00:14:23	
Whale Harbor Br (S)	20	01:44:03	00:05:31		42.486	1.871		20.3	10+	CG	00:03:31	
Teatable Relf Br (N)	19	01:52:18	00:08:15		46.587	4.101		29.8	10+	CG	00:02:00	
Lignum V Br (S)	18	01:55:04	00:02:46		48.816	2.229		48.3				
Channel #2 Br (N)	17	02:00:24	00:05:20		53.282	4.466		50.2				
Long Key Br (S)	16	02:13:31	00:13:07		63.129	9.847		45.0	10+	CG	00:00:48	
Toms Harbor Ch Br (S)	15	02:16:30	00:02:59		65.771	2.642		53.1				
Coco Plum Dr	14	02:24:38	00:08:08		72.162	6.391		47.1				
7-Mile Br (N)	13	02:36:56	00:12:18	00:01:02	79.420	7.258	0.117	38.0	10+	TS, EV	00:01:48	20
7-Mile Br (S)	12	02:44:18	00:07:22		86.205	6.785		55.3				
Long Beach Dr	11	02:52:23	00:08:05		93.224	7.019		52.1				4
N Pine Ch Br (N)	10	02:57:39	00:05:16		96.628	3.404		38.8	10+	TS	00:00:25	
Torch-Ramrod Br (S)	9	03:00:21	00:02:42		98.676	2.048		45.5				
E Shore Dr	8	03:03:10	00:02:49		100.966	2.290		48.8				
Spanish Main Dr	7	03:05:47	00:02:37		103.182	2.216		50.8				
Bow Channel Br (N)	6	03:08:51	00:03:04		105.721	2.539		49.7				
Harris Ch Br (N)	5	03:13:25	00:04:34		109.681	3.960		52.0				
Boca Chica Rd	4	03:20:08	00:06:43		115.447	5.766		51.5				
Rockland Dr	3	03:22:09	00:02:01		116.954	1.507		44.8				
Key Haven Blvd	2	03:26:03	00:03:54		120.839	3.885		59.8				3
Cow Key Bridge (N)	1	03:27:41	00:01:38		121.950	1.111		40.8	10+			3
OVERALL		-----	02:55:15	00:13:59	-----	108.105	2.264	39.4			00:58:38	41

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS  
SATURDAY, 03-14-15, 14:45 TO 18:15**



FILE:030213.XLS

—◆— SEG. SPEED

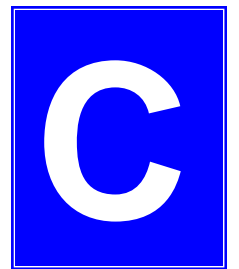
----- AVG. SPEED

# APPENDIX C

## 2015 Traffic Volume Summary



# A P P E N D I X



**URS**

**2015 TRAFFIC VOLUME SUMMARY**  
**BIG PINE KEY (MM 29): NORTH PINE CHANNEL BRIDGE**

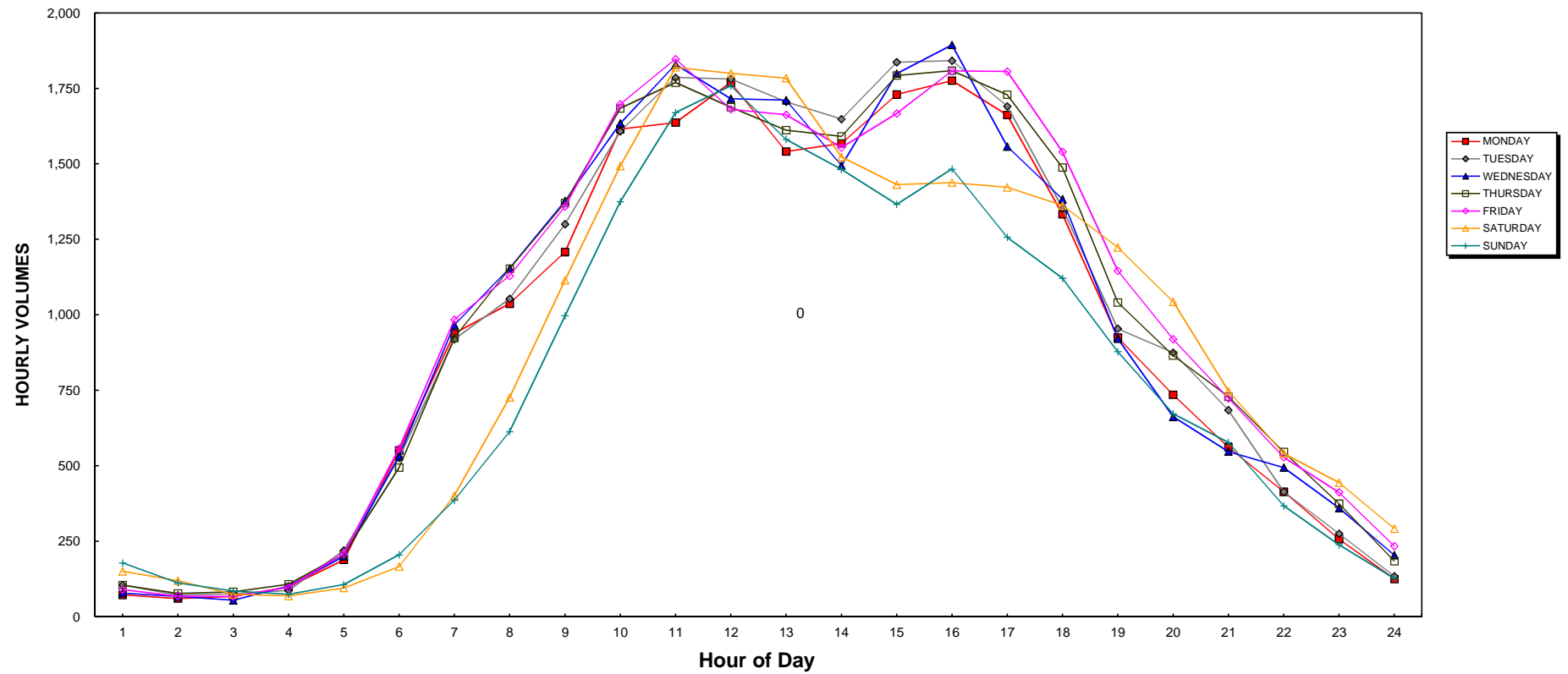
Hour Ending	Monday 03/09/2015			Tuesday 03/10/2015			Wednesday 03/11/2015			Thursday 03/12/2015			Friday 03/13/2015			Saturday 03/14/2015			Sunday 03/15/2015		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
1 AM	41	31	72	54	51	105	38	40	78	57	48	105	47	42	89	72	78	150	106	72	178
2 AM	35	25	60	36	35	71	38	29	67	42	35	77	37	31	68	64	55	119	67	45	112
3 AM	36	31	67	46	30	76	35	19	54	43	39	82	40	27	67	30	44	74	45	40	85
4 AM	52	46	98	45	42	87	58	43	101	57	50	107	52	45	97	35	34	69	44	30	74
5 AM	70	118	188	107	112	219	90	110	200	100	107	207	91	118	209	57	38	95	67	39	106
6 AM	211	340	551	219	307	526	206	326	532	224	270	494	216	341	557	102	64	166	114	91	205
7 AM	405	533	938	396	523	919	432	534	966	448	476	924	422	562	984	244	157	401	267	119	386
8 AM	543	494	1,037	547	506	1,053	606	548	1,154	614	539	1,153	585	544	1,129	434	292	726	419	194	613
9 AM	676	532	1,208	651	649	1,300	696	682	1,378	719	652	1,371	697	662	1,359	685	430	1,115	567	430	997
10 AM	849	766	1,615	773	835	1,608	819	815	1,634	851	833	1,684	846	852	1,698	831	662	1,493	819	556	1,375
11 AM	830	807	1,637	829	957	1,786	854	975	1,829	890	879	1,769	868	979	1,847	1003	817	1,820	869	801	1,670
12 NOON	742	1027	1,769	788	993	1,781	741	975	1,716	797	891	1,688	783	898	1,681	849	951	1,800	873	886	1,759
1 PM	711	830	1,541	758	948	1,706	737	974	1,711	788	824	1,612	765	898	1,663	726	1058	1,784	729	852	1,581
2 PM	720	848	1,568	734	914	1,648	717	777	1,494	769	822	1,591	754	800	1,554	635	888	1,523	646	836	1,482
3 PM	729	1001	1,730	866	971	1,837	849	950	1,799	891	902	1,793	834	833	1,667	596	835	1,431	589	777	1,366
4 PM	793	983	1,776	866	976	1,842	858	1036	1,894	901	908	1,809	860	948	1,808	594	844	1,438	633	850	1,483
5 PM	741	921	1,662	874	817	1,691	838	720	1,558	885	844	1,729	831	975	1,806	630	792	1,422	588	669	1,257
6 PM	683	650	1,333	792	561	1,353	786	597	1,383	820	668	1,488	766	774	1,540	628	734	1,362	583	538	1,121
7 PM	511	414	925	529	425	954	527	394	921	563	478	1,041	543	603	1,146	544	679	1,223	431	447	878
8 PM	450	285	735	552	323	875	358	304	662	458	407	865	477	442	919	497	546	1,043	357	315	672
9 PM	365	196	561	473	211	684	341	206	547	412	317	729	409	314	723	366	381	747	349	228	577
10 PM	268	146	414	273	141	414	345	149	494	336	210	546	298	230	528	325	215	540	215	152	367
11 PM	154	103	257	178	97	275	256	104	360	239	135	374	200	212	412	280	164	444	137	101	238
12 MID-NIGHT	64	61	125	72	62	134	138	66	204	119	65	184	94	140	234	163	129	292	65	62	127
Daily Total	10,679	11,188	21,867	11,458	11,486	22,944	11,363	11,373	22,736	12,023	11,399	23,422	11,515	12,270	23,785	10,390	10,887	21,277	9,579	9,130	18,709
AADT*	9,419	9,868	19,287	10,106	10,131	20,237	10,022	10,031	20,053	10,604	10,054	20,658	10,156	10,822	20,978	9,164	9,602	18,766	8,449	8,053	16,501

\* AADT = Raw Count\*Seasonal Factor\*Axle Factor

5-Day ADT 22,833  
7-Day ADT 22,106  
2014 Seasonal Factor 0.90  
2014 Axle Factor 0.98  
5-Day AADT 20,139  
7-Day AADT 19,497



**US-1 NON-DIRECTIONAL HOURLY VOLUMES**  
**BIG PINE KEY (MM 29) 03-09-2015 TO 03-15-2015**



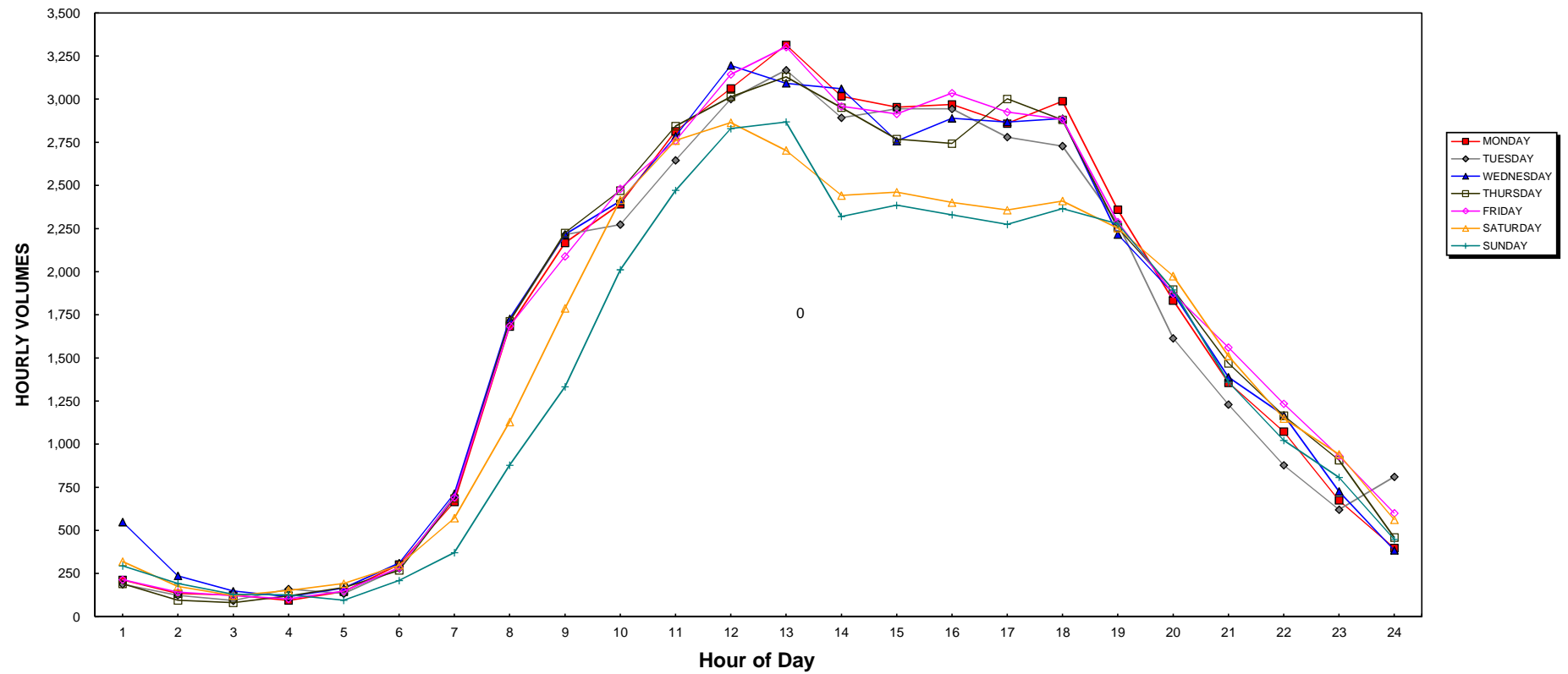
**2015 TRAFFIC VOLUME SUMMARY**  
**MARATHON (MM 50): NORTH OF SOMBRERO BEACH ROAD**

Hour Ending	Monday 03/09/2015			Tuesday 03/10/2015			Wednesday 03/11/2015			Thursday 03/12/2015			Friday 03/13/2015			Saturday 03/14/2015			Sunday 03/15/2015		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
1 AM	115	98	213	107	81	188	451	98	549	110	81	191	123	91	214	164	155	319	171	123	294
2 AM	65	69	134	58	66	124	167	70	237	49	46	95	85	58	143	84	91	175	101	91	192
3 AM	62	63	125	47	46	93	95	53	148	45	36	81	55	67	122	66	56	122	60	69	129
4 AM	42	52	94	61	99	160	57	58	115	49	72	121	56	47	103	97	55	152	71	55	126
5 AM	68	77	145	57	77	134	80	86	166	69	100	169	74	75	149	108	84	192	65	30	95
6 AM	134	169	303	116	164	280	165	145	310	113	155	268	134	150	284	159	139	298	117	92	209
7 AM	302	363	665	303	396	699	311	402	713	293	392	685	310	382	692	309	262	571	192	179	371
8 AM	726	956	1,682	747	965	1,712	770	957	1,727	745	967	1,712	760	925	1,685	552	577	1,129	459	419	878
9 AM	999	1168	2,167	1018	1196	2,214	1029	1187	2,216	1040	1185	2,225	998	1091	2,089	905	883	1,788	624	709	1,333
10 AM	1207	1185	2,392	1044	1229	2,273	1121	1288	2,409	1145	1325	2,470	1240	1241	2,481	1148	1268	2,416	945	1066	2,011
11 AM	1323	1491	2,814	1196	1450	2,646	1325	1460	2,785	1403	1441	2,844	1399	1360	2,759	1335	1425	2,760	1293	1178	2,471
12 NOON	1492	1570	3,062	1439	1562	3,001	1540	1656	3,196	1416	1598	3,014	1487	1656	3,143	1453	1411	2,864	1443	1386	2,829
1 PM	1590	1725	3,315	1520	1648	3,168	1485	1607	3,092	1567	1562	3,129	1667	1636	3,303	1387	1316	2,703	1489	1379	2,868
2 PM	1420	1597	3,017	1364	1529	2,893	1501	1560	3,061	1453	1498	2,951	1506	1453	2,959	1146	1296	2,442	1208	1112	2,320
3 PM	1388	1566	2,954	1436	1509	2,945	1310	1447	2,757	1344	1425	2,769	1460	1455	2,915	1265	1196	2,461	1234	1151	2,385
4 PM	1520	1450	2,970	1493	1451	2,944	1499	1391	2,890	1379	1364	2,743	1578	1457	3,035	1179	1222	2,401	1194	1136	2,330
5 PM	1470	1389	2,859	1445	1335	2,780	1512	1356	2,868	1595	1407	3,002	1513	1412	2,925	1168	1189	2,357	1236	1038	2,274
6 PM	1535	1453	2,988	1503	1225	2,728	1540	1347	2,887	1482	1398	2,880	1475	1408	2,883	1156	1254	2,410	1237	1129	2,366
7 PM	1244	1115	2,359	1226	1054	2,280	1193	1023	2,216	1226	1028	2,254	1196	1093	2,289	1063	1189	2,252	1302	976	2,278
8 PM	1091	742	1,833	871	743	1,614	1134	741	1,875	1105	791	1,896	1029	843	1,872	1039	936	1,975	1145	750	1,895
9 PM	811	545	1,356	670	560	1,230	854	534	1,388	857	612	1,469	889	672	1,561	844	667	1,511	860	500	1,360
10 PM	686	387	1,073	464	414	878	743	425	1,168	725	440	1,165	728	506	1,234	725	424	1,149	718	304	1,022
11 PM	416	258	674	362	258	620	481	245	726	599	309	908	543	389	932	613	328	941	556	252	808
12 MID-NIGHT	222	176	398	611	200	811	233	152	385	275	184	459	329	271	600	350	212	562	284	164	448
Daily Total	19,928	19,664	39,592	19,158	19,257	38,415	20,596	19,288	39,884	20,084	19,416	39,500	20,634	19,738	40,372	18,315	17,635	35,950	18,004	15,288	33,292
AADT*	17,576	17,344	34,920	16,897	16,985	33,882	18,166	17,012	35,178	17,714	17,125	34,839	18,199	17,409	35,608	16,154	15,554	31,708	15,880	13,484	29,364

\* AADT = Raw Count\*Seasonal Factor\*Axle Factor

5-Day ADT 38,824  
7-Day ADT 38,144  
2014 Seasonal Factor 0.90  
2014 Axle Factor 0.98  
5-Day AADT 34,243  
7-Day AADT 33,643

**US-1 NON-DIRECTIONAL HOURLY VOLUMES**  
**MARATHON (MM 50) 03-09-2015 TO 03-15-2015**



**2015 TRAFFIC VOLUME SUMMARY**  
**UPPER MATECUMBE (MM 84): WHALE HARBOR CHANNEL BRIDGE**

Hour Ending	Monday 03/09/2015			Tuesday 03/10/2015			Wednesday 03/11/2015			Thursday 03/12/2015			Friday 03/13/2015			Saturday 03/14/2015			Sunday 03/15/2015		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
1 AM	173	82	255	78	55	133	380	76	456	93	71	164	125	84	209	162	112	274	234	112	346
2 AM	106	66	172	39	44	83	220	37	257	62	44	106	68	61	129	99	95	194	144	103	247
3 AM	57	48	105	35	43	78	70	45	115	38	32	70	47	44	91	68	60	128	83	67	150
4 AM	52	44	96	33	41	74	60	34	94	50	60	110	42	40	82	58	46	104	56	38	94
5 AM	59	61	120	40	56	96	45	48	93	59	66	125	57	62	119	91	60	151	64	46	110
6 AM	102	171	273	75	171	246	99	192	291	80	178	258	110	180	290	133	166	299	88	130	218
7 AM	202	401	603	192	448	640	190	426	616	201	455	656	210	435	645	257	381	638	157	263	420
8 AM	378	590	968	410	690	1,100	408	652	1,060	407	691	1,098	364	598	962	404	544	948	288	358	646
9 AM	517	805	1,322	485	810	1,295	556	873	1,429	525	898	1,423	561	853	1,414	558	781	1,339	415	578	993
10 AM	671	893	1,564	578	860	1,438	665	925	1,590	696	925	1,621	709	907	1,616	794	935	1,729	588	797	1,385
11 AM	867	915	1,782	766	977	1,743	833	968	1,801	859	914	1,773	927	821	1,748	933	773	1,706	863	1035	1,898
12 NOON	956	1004	1,960	861	1065	1,926	930	963	1,893	950	1022	1,972	985	957	1,942	1010	929	1,939	967	1081	2,048
1 PM	942	985	1,927	877	990	1,867	861	1077	1,938	918	1082	2,000	953	893	1,846	978	1002	1,980	1040	856	1,896
2 PM	907	1013	1,920	822	1056	1,878	793	1039	1,832	936	981	1,917	1040	1045	2,085	833	1075	1,908	941	877	1,818
3 PM	874	1038	1,912	779	1022	1,801	913	944	1,857	984	949	1,933	891	872	1,763	699	1032	1,731	1029	1023	2,052
4 PM	856	983	1,839	976	718	1,694	947	909	1,856	979	920	1,899	948	867	1,815	912	944	1,856	973	932	1,905
5 PM	1004	783	1,787	973	704	1,677	1039	720	1,759	1028	852	1,880	959	929	1,888	871	968	1,839	971	846	1,817
6 PM	904	654	1,558	881	670	1,551	992	625	1,617	949	803	1,752	862	708	1,570	841	1151	1,992	1006	653	1,659
7 PM	737	586	1,323	786	580	1,366	805	632	1,437	893	656	1,549	1006	635	1,641	865	954	1,819	977	526	1,503
8 PM	643	407	1,050	708	466	1,174	670	442	1,112	742	534	1,276	761	567	1,328	798	592	1,390	1022	440	1,462
9 PM	491	349	840	461	326	787	566	345	911	741	457	1,198	714	484	1,198	770	450	1,220	581	227	808
10 PM	400	234	634	317	219	536	561	234	795	587	292	879	520	433	953	620	335	955	538	298	836
11 PM	383	169	552	212	159	371	399	177	576	394	222	616	449	290	739	545	236	781	606	120	726
12 MID-NIGHT	201	90	291	229	96	325	259	89	348	322	102	424	295	206	501	428	164	592	283	151	434
Daily Total	12,482	12,371	24,853	11,613	12,266	23,879	13,261	12,472	25,733	13,493	13,206	26,699	13,603	12,971	26,574	13,727	13,785	27,512	13,914	11,557	25,471
AADT*	11,009	10,911	21,920	10,243	10,819	21,061	11,696	11,000	22,697	11,901	11,648	23,549	11,998	11,440	23,438	12,107	12,158	24,266	12,272	10,193	22,465

\* AADT = Raw Count\*Seasonal Factor\*Axle Factor

5-Day ADT 26,079

7-Day ADT 25,817

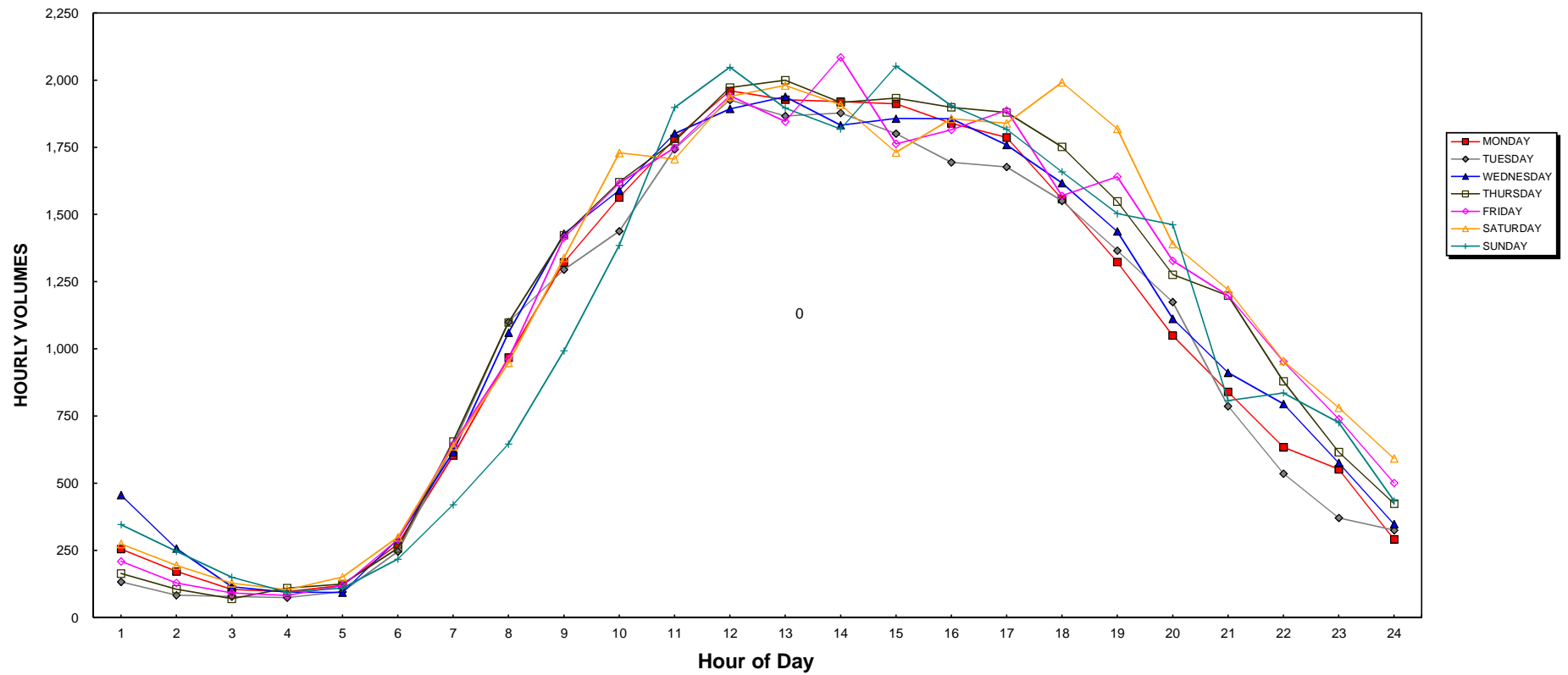
2014 Seasonal Factor 0.90

2014 Axle Factor 0.98

5-Day AADT 23,002

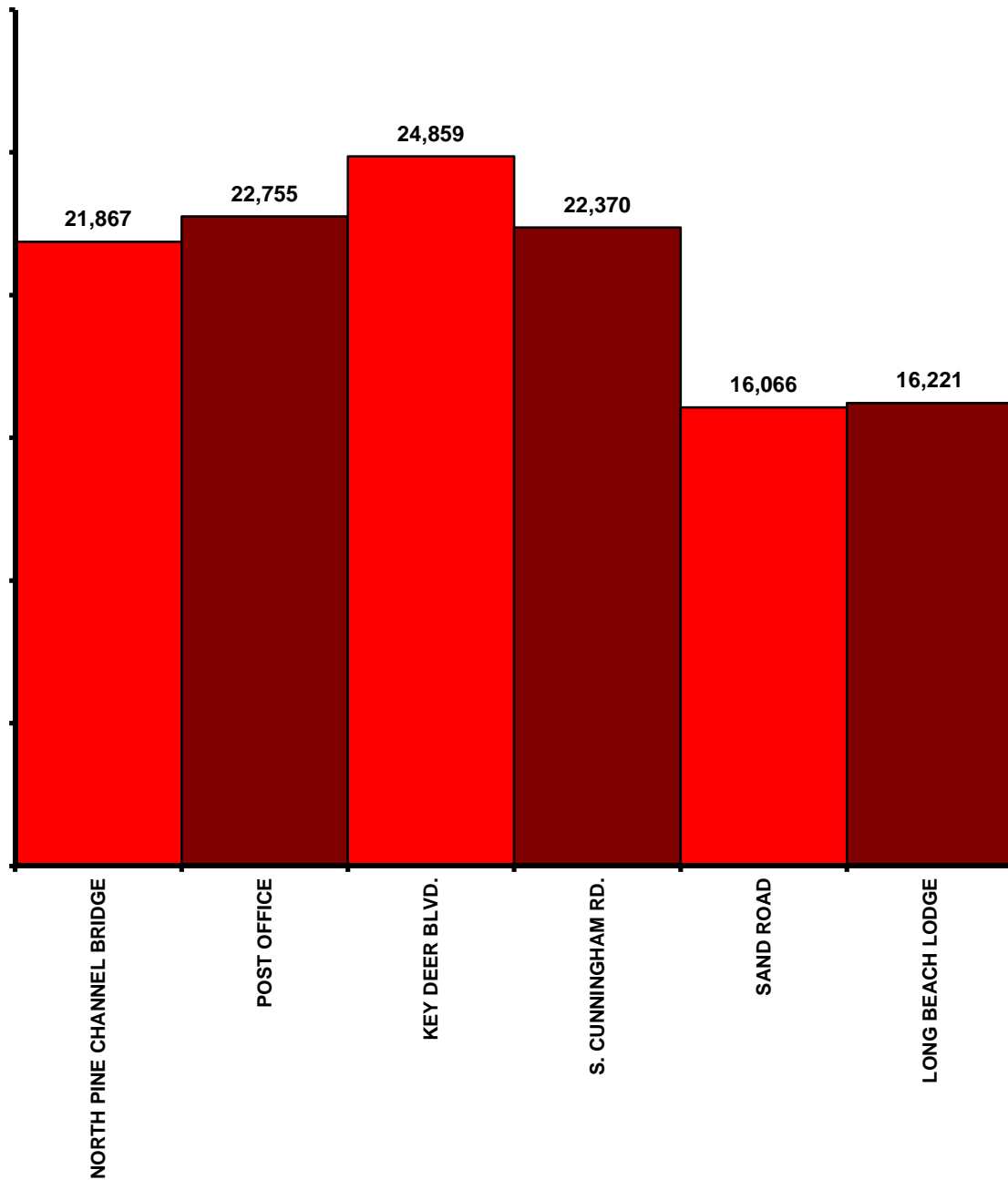
7-Day AADT 22,771

**US-1 NON-DIRECTIONAL HOURLY VOLUMES  
UPPER MATECUMBE (MM 84) 03-09-2015 TO 03-15-2015**



TO KEY WEST  
←

TO MARATHON  
→

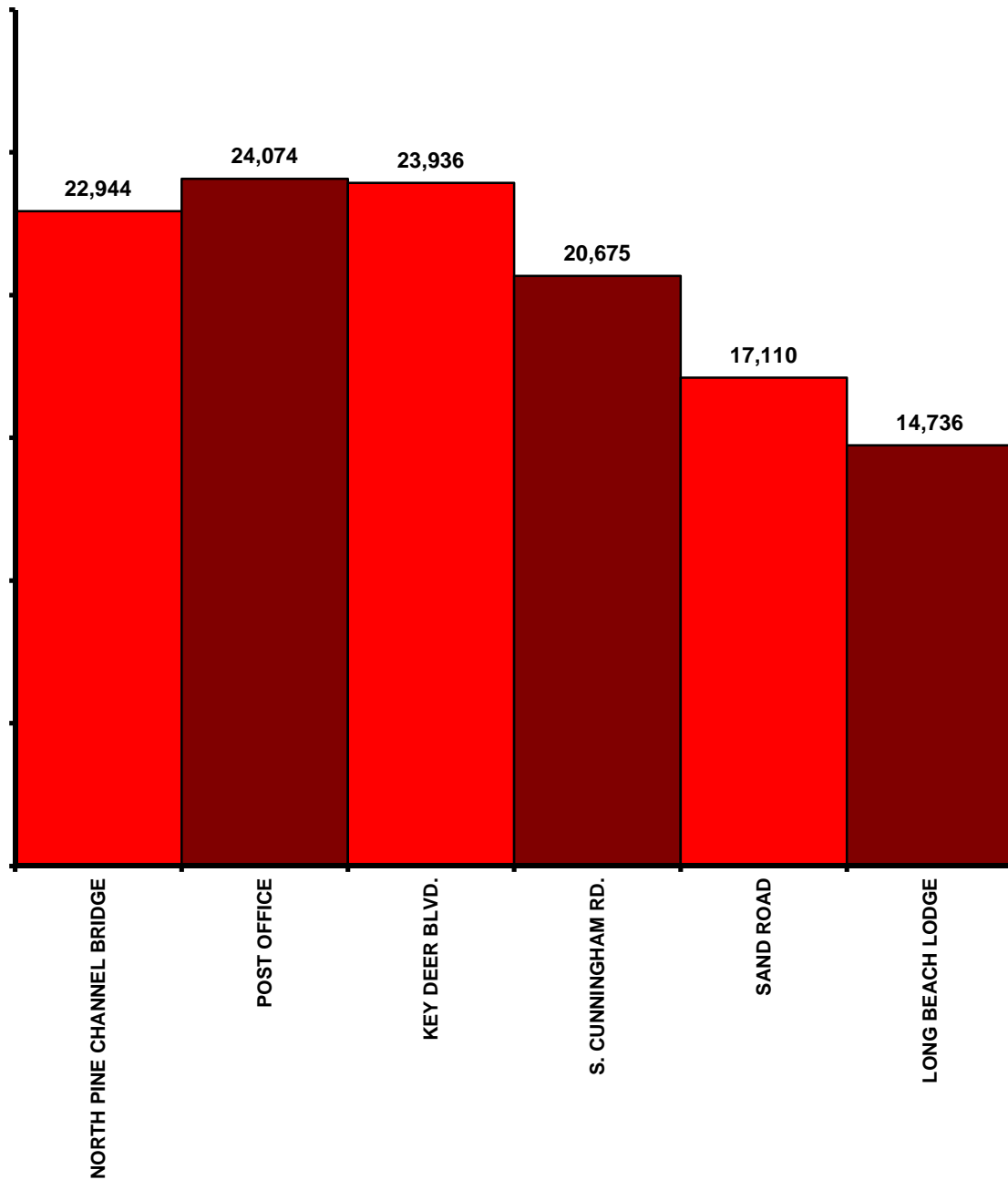


2015  
TRAVEL TIME DELAY STUDY  
MONROE COUNTY, FLORIDA

EXHIBIT I-1  
TWO-WAY DAILY VOLUMES  
US 1 - MONDAY

TO KEY WEST  
←

TO MARATHON  
→

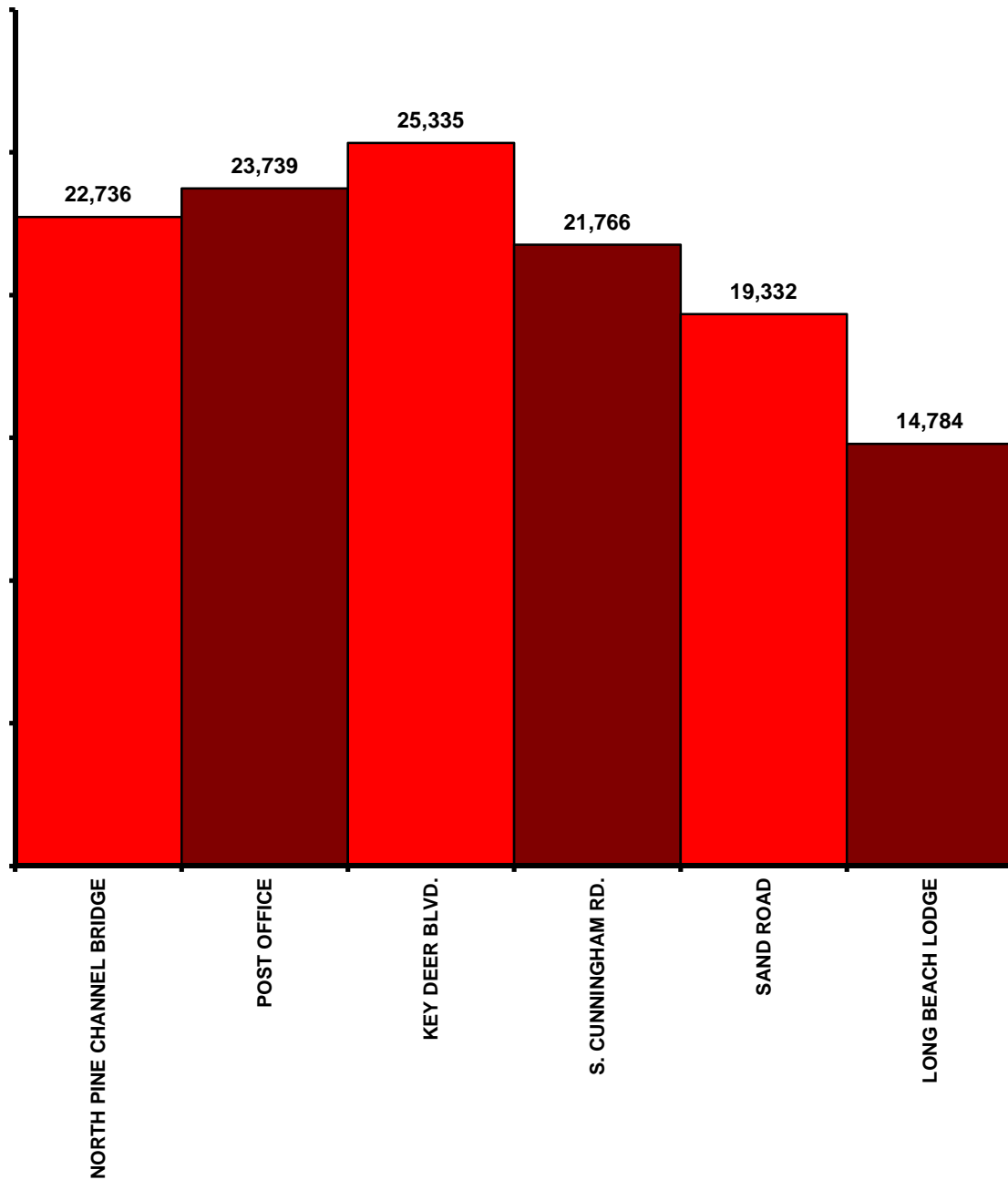


2015  
TRAVEL TIME DELAY STUDY  
MONROE COUNTY, FLORIDA

EXHIBIT I-2  
TWO-WAY DAILY VOLUMES  
US 1 - TUESDAY

TO KEY WEST  
←

TO MARATHON  
→



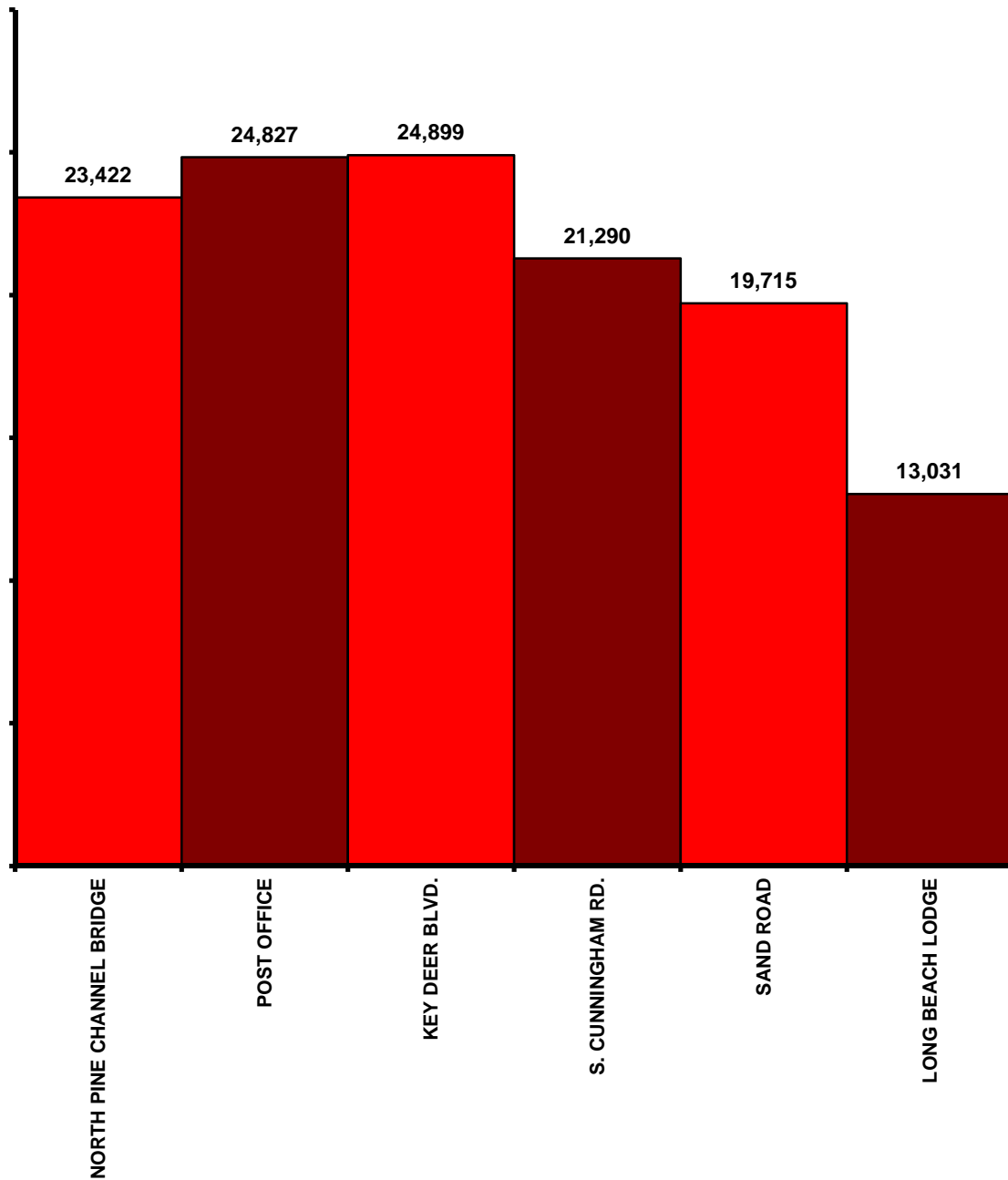
2015  
TRAVEL TIME DELAY STUDY  
MONROE COUNTY, FLORIDA

EXHIBIT I-3  
TWO-WAY DAILY VOLUMES  
US 1 - WEDNESDAY



TO KEY WEST  
←

TO MARATHON  
→

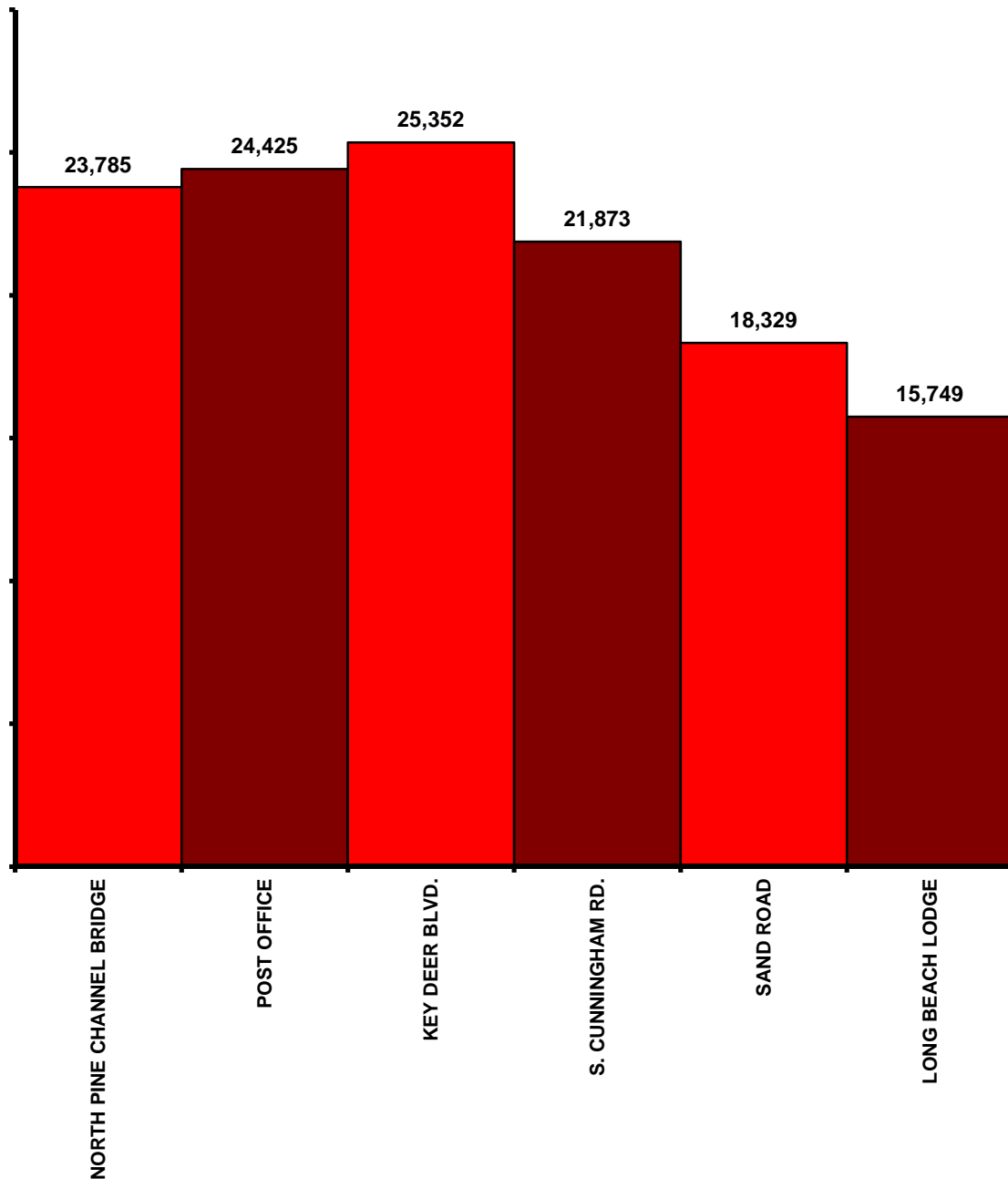


2015  
TRAVEL TIME DELAY STUDY  
MONROE COUNTY, FLORIDA

EXHIBIT I-4  
TWO-WAY DAILY VOLUMES  
US 1 - THURSDAY

TO KEY WEST  
←

TO MARATHON  
→

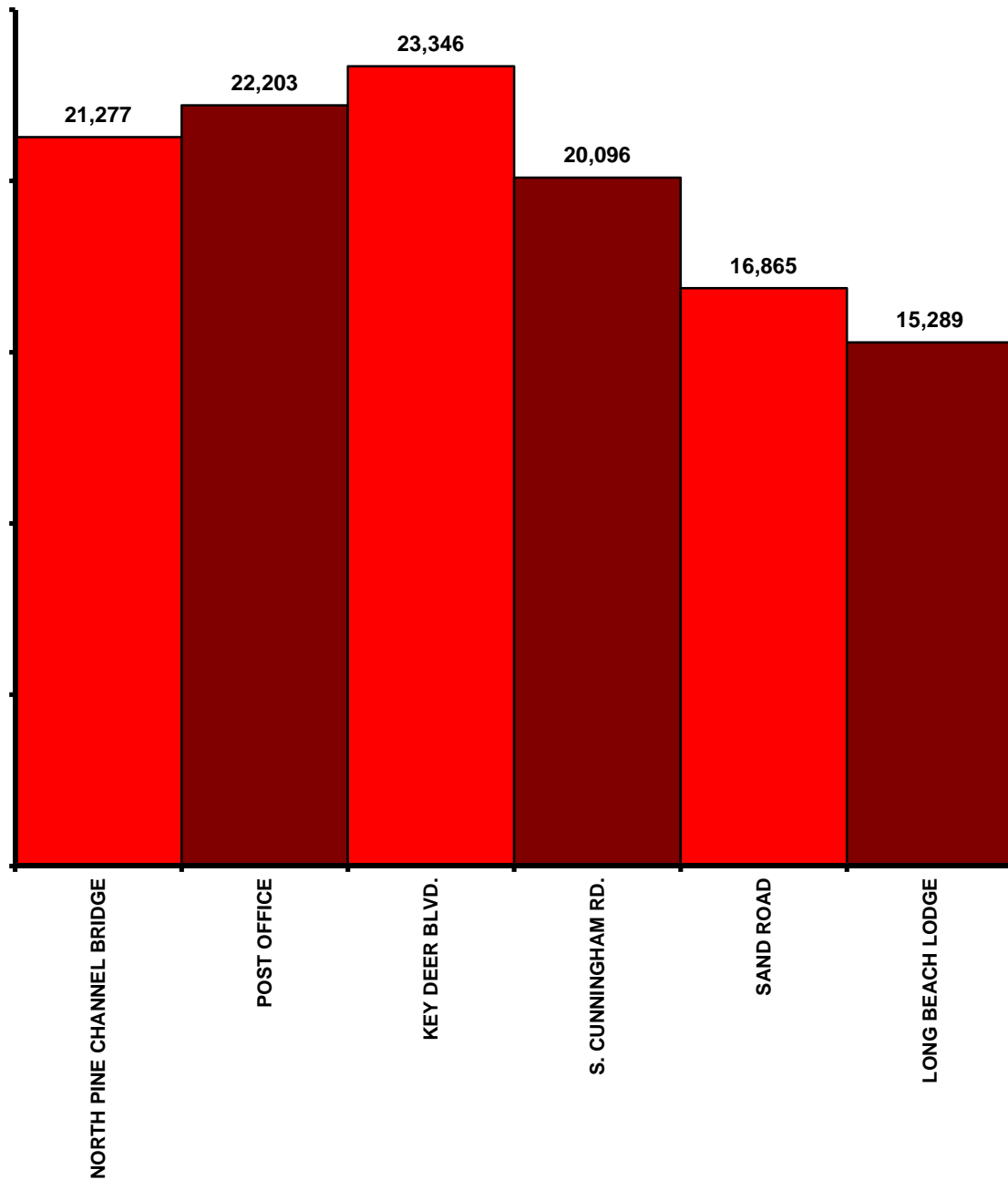


2015  
TRAVEL TIME DELAY STUDY  
MONROE COUNTY, FLORIDA

EXHIBIT I-5  
TWO-WAY DAILY VOLUMES  
US 1 - FRIDAY

TO KEY WEST  
←

TO MARATHON  
→

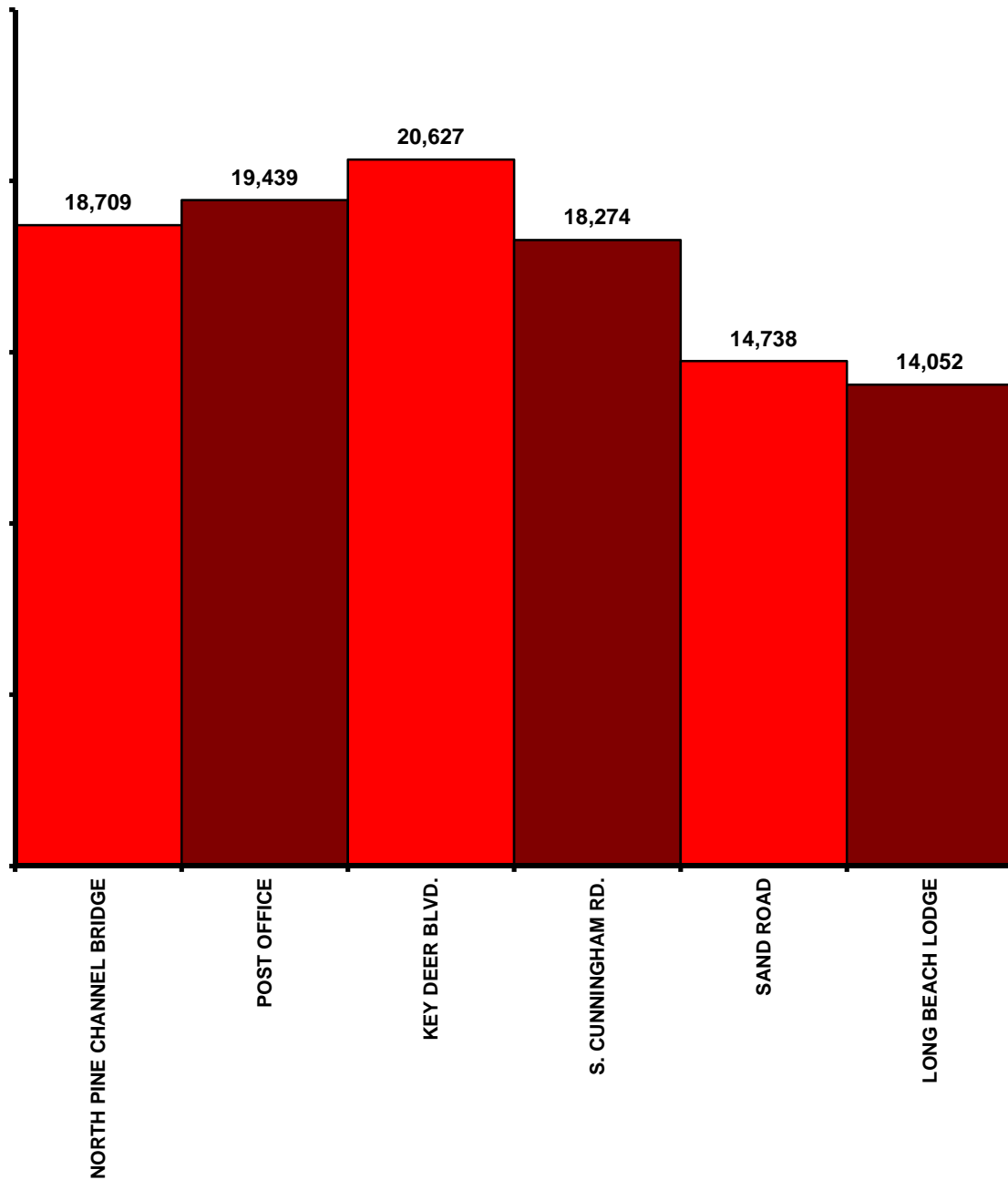


2015  
TRAVEL TIME DELAY STUDY  
MONROE COUNTY, FLORIDA

EXHIBIT I-6  
TWO-WAY DAILY VOLUMES  
US 1 - SATURDAY

TO KEY WEST  
←

TO MARATHON  
→



2015  
TRAVEL TIME DELAY STUDY  
MONROE COUNTY, FLORIDA

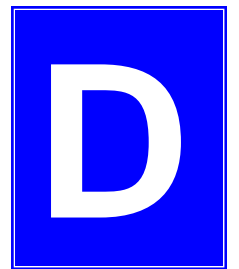
EXHIBIT I-7  
TWO-WAY DAILY VOLUMES  
US 1 - SUNDAY

# APPENDIX D

## Historical Count Data



# A P P E N D I X



**URS**

## HISTORICAL COUNT DATA

		1993	1994		1995		1996		1997		1998		1999		2000		2001		2002		2003	
		Count	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change
<b>Big Pine</b>																						
5 – Day Average		23,811	20,604	-13.47%	27,533	33.63	24,270	11.85%	25,295	4.22%	24,224	-4.23%	25,819	6.58%	26,846	3.98%	23,403	-12.38%	22,612	-3.38%	23,341	3.22%
7 – Day Average		23,893	20,545	-14.01%	26,885	30.86%	23,476	-12.68%	24,371	3.81%	23,786	-2.40%	24,955	4.91%	26,070	4.47%	22,648	-13.13%	21,937	-3.14%	22,788	3.88%
AADT		-	17,743	-10.11%	22,688	27.87%	21,186	-6.62%	21,496	1.46%	19,866	-7.58%	20,843	4.92%	21,774	4.47%	19,991	-8.19%	19,364	-3.14%	20,115	3.88%
<b>Marathon</b>																						
5 – Day Average		34,515	31,484	-8.78%	35,771	13.62%	33,620	-6.01%	34,528	2.70%	35,417	-2.57%	38,619	9.04%	36,431	-5.67%	33,777	-7.29%	36,989	9.51%	36,817	-0.47%
7 – Day Average		33,517	30,449	-9.15%	34,278	12.58%	31,919	-6.88%	32,800	2.76%	34,305	-4.59%	36,818	7.33%	34,742	-5.64%	32,106	-7.59%	35,442	10.39%	35,984	1.53%
AADT		27,688	26,297	-5.02%	28,927	10.00%	27,924	-3.47%	28,930	3.60%	28,651	-0.96%	30,750	7.33%	29,017	-5.64%	28,340	-2.33%	31,285	10.39%	31,763	1.53%
<b>Upper Matecumbe</b>																						
5 – Day Average		22,312	21,929	-1.72%	24,026	9.56%	22,987	-4.32%	24,539	6.75%	24,988	1.83%	26,512	6.10%	26,642	0.49%	24,177	-9.25%	26,589	9.98%	26,759	0.64%
7 – Day Average		23,358	22,687	-2.87%	24,260	6.93%	22,826	-5.91%	24,489	7.29%	25,504	4.14%	26,465	3.77%	26,831	1.38%	24,719	-7.87%	26,475	7.10%	26,514	0.15%
AADT		19,296	19,593	1.54%	20,473	4.49%	20,083	-1.90%	21,599	7.55%	21,301	-1.38%	22,103	3.77%	22,410	1.39%	21,819	-2.64%	23,369	7.10%	23,404	0.15%

## HISTORICAL COUNT DATA (Continued)

	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	count	% change	Count	% Change	Count	% Change
Big Pine																						
5 – Day Average	23,341	3.22%	23,108	-0.0101	24,304	5.17%	22,451	-7.62%	25,235	12.40%	21,495	-14.82%	21,242	-1.18%	20,651	-2.78%	20,468	-0.88%	21,056	2.87%	20,986	-0.33%
7 – Day Average	22,788	3.88%	22,538	-1.10%	23,788	5.55%	21,691	-8.82%	25,550	17.79%	20,612	-19.33%	20,656	0.21%	20,115	-2.62%	20,070	-0.22%	20,579	2.53%	20,066	-2.49%
AADT	20,115	3.88%	19,894	-1.10%	19,844	-0.25%	18,095	-8.81%	20,215	11.72%	16,308	-19.33%	16,680	2.28%	17,842	6.97%	17,684	-0.88%	18,011	1.85%	17,943	-0.38%
Marathon																						
5 – Day Average	36,817	-0.47%	37,604	2.14%	37,405	-0.53%	35,388	-5.39%	36,742	3.83%	34,414	-6.34%	34,193	-0.64%	31,883	-6.76%	32,156	0.85%	34,145	6.19%	34,097	-0.14%
7 – Day Average	35,984	1.53%	36,563	1.61%	36,085	-1.32%	33,414	-7.40%	34,811	4.18%	31,731	-8.85%	32,298	1.79%	30,548	-5.42%	31,097	1.79%	32,985	6.07%	32,783	-0.61%
AADT	31,763	1.53%	32,274	1.61%	30,102	-7.22%	27,874	-7.40%	27,542	-1.19%	25,106	-8.84%	26,081	3.88%	27,547	5.62%	27,782	0.85%	29,208	5.13%	29,153	-0.19%
Upper Matecumbe																						
5 – Day Average	26,759	0.64%	27,194	1.63%	27,980	2.89%	23,982	-14.29%	27,933	16.47%	23,416	-16.17%	23,071	-1.47%	22,588	-2.09%	24,326	7.69%	24,561	0.97%	23,656	-3.68%
7 – Day Average	26,514	0.15%	27,561	3.95%	27,693	0.48%	23,916	-13.64%	28,410	18.79%	23,024	-18.96%	23,016	-0.03%	22,634	-1.66%	24,508	8.27%	24,936	1.75%	23,164	-7.11%
AADT	23,404	0.15%	24,328	3.95%	22,927	-6.11%	19,951	-12.98%	23,455	17.56%	19,008	-18.96%	18,585	-2.23%	19,516	5.01%	21,017	7.69%	21,009	-0.04%	20,226	-3.73%

## HISTORICAL COUNT DATA (Continued)

	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024		2025	
	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% change	Count	% Change	Count	% change
Big Pine																						
5 – Day Average	22,833	8.80%																				
7 – Day Average	22,106	10.17%																				
AADT	20,139	12.24%																				
Marathon																						
5 – Day Average	38,824	13.86%																				
7 – Day Average	38,144	16.35%																				
AADT	34,243	17.46%																				
Upper Matecumbe																						
5 – Day Average	26,079	10.24%																				
7 – Day Average	25,817	11.45%																				
AADT	23,002	13.73%																				

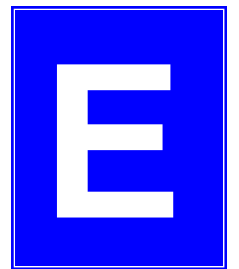
Note: For the years that the Travel Time Delay study is not scheduled (2014), volumes were obtained from the nearest FDOT FTI count site which may only have three (3) days of data.

# APPENDIX E

## 2015 Travel Speed Summary Data and Statistics



# A P P E N D I X



**URS**

# 2015 TRAVEL SPEED DATA

	Stock Island	Boca Chica	Big Coppitt	Saddlebunch	Sugarloaf	Cudjoe	Summerland	Ramrod	Torch	Big Pine	Bahia Honda	7-Mile Bridge	Marathon	Grassy	Duck	Long	L. Matecumbe	Tea Table	U. Matecumbe	Windley	Plantation	Tavernier	Largo	Cross	Dade	
	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	
Sunday 03-01-15 Northbound Southbound	31.4 28.9	54.9 56.9	51.1 40.8	55.5 52.0	49.8 48.2	50.3 47.7	48.6 44.2	50.2 48.5	50.2 48.0	43.1 37.9	54.5 51.7	51.2 53.7	40.0 40.8	51.5 53.3	49.3 51.4	49.4 48.9	49.7 46.5	45.9 42.3	41.6 32.2	38.9 28.1	42.7 23.7	49.1 48.6	47.3 43.9	49.0 35.1	54.9 55.1	48.0 43.0
Monday 03-02-15 Northbound Southbound	32.3 24.8	59.1 59.1	47.9 39.2	53.1 48.6	49.3 46.3	43.9 45.8	42.0 42.9	47.3 42.2	50.5 46.4	42.1 31.4	53.5 52.6	57.1 51.9	38.9 36.2	51.8 48.8	52.5 47.5	53.9 46.6	51.9 47.2	48.5 45.6	42.2 29.5	40.0 39.3	46.4 33.3	51.3 49.1	49.1 47.3	56.0 46.8	58.6 48.7	49.1 43.8
Tuesday 03-03-15 Northbound Southbound	36.9 36.8	58.9 59.0	48.3 41.3	51.6 51.1	46.6 44.6	47.3 47.5	46.1 42.2	47.8 44.2	48.9 45.4	39.8 36.6	49.2 47.1	52.9 43.3	33.8 38.0	53.6 49.7	54.3 48.1	52.1 45.5	51.8 46.9	42.9 41.9	38.9 37.1	38.7 40.9	26.1 39.6	41.8 49.8	40.8 41.9	49.5 53.8	56.2 56.0	44.3 44.8
Wednesday 03-04-15 Northbound Southbound	42.9 34.2	59.9 58.3	48.1 46.4	54.2 51.3	44.3 44.1	45.1 44.3	42.8 40.7	46.9 44.3	48.8 46.7	44.6 34.1	52.7 59.4	51.1 46.3	39.2 36.4	51.4 48.5	57.3 48.8	48.8 50.9	52.5 45.3	53.1 45.3	38.1 40.4	38.0 40.4	33.1 43.7	40.8 48.2	44.5 44.9	48.8 43.5	54.7 56.0	46.0 45.6
Thursday 03-05-15 Northbound Southbound	41.1 37.2	56.5 58.4	50.1 42.1	55.2 51.0	47.1 46.0	46.5 44.4	44.1 45.3	47.2 45.0	45.4 46.8	34.9 36.1	53.7 49.8	55.8 54.8	37.1 37.8	50.0 49.6	50.8 51.9	49.6 50.7	52.2 49.0	47.0 48.7	38.2 40.2	32.0 42.7	35.9 41.0	35.6 51.0	44.7 46.3	52.2 54.2	52.0 57.8	45.3 47.0
Friday 03-06-15 Northbound Southbound	42.5 25.5	50.9 58.1	51.6 48.3	51.5 50.0	51.1 45.6	49.3 42.0	48.4 40.9	49.9 41.4	48.9 47.3	38.7 32.5	53.7 52.8	56.6 53.6	38.6 38.4	52.0 51.6	50.8 48.8	42.9 48.9	48.2 49.3	47.0 43.8	40.5 36.7	23.2 34.4	37.3 35.6	43.4 49.8	43.7 44.3	51.0 51.8	54.8 59.8	45.8 44.0
Saturday 03-07-15 Northbound Southbound	37.6 32.8	59.1 58.2	55.8 39.3	52.2 47.3	49.4 46.6	41.1 48.0	44.5 39.9	46.2 45.1	48.6 44.4	36.7 25.2	52.5 51.1	52.9 56.1	38.8 40.3	54.1 45.4	47.9 47.8	47.5 49.2	44.4 51.7	39.7 49.6	39.4 40.0	14.4 27.8	36.4 30.5	49.2 49.2	49.3 40.4	53.3 45.7	53.9 54.0	45.0 41.8
Sunday 03-08-15 Northbound Southbound	28.6 43.8	58.1 59.0	45.5 48.7	50.8 53.2	46.0 49.1	43.6 50.7	37.8 45.8	44.6 49.6	35.9 50.2	38.1 39.8	54.2 50.3	46.0 49.4	35.3 46.5	49.0 54.0	50.3 49.5	45.8 50.4	48.5 50.7	41.1 52.5	36.2 42.8	32.8 32.1	41.4 38.6	45.2 51.9	47.3 41.6	47.7 52.1	56.3 56.6	44.4 45.5
Monday 03-09-15 Northbound Southbound	33.0 31.9	52.7 58.1	51.4 46.2	57.5 50.4	47.9 48.9	50.1 47.5	50.2 43.5	50.1 47.4	44.0 49.1	37.0 39.5	49.4 54.5	52.3 57.7	36.9 38.8	51.6 48.9	51.9 50.3	48.9 50.4	48.3 49.1	49.2 46.5	36.3 42.8	38.9 43.1	40.0 40.6	47.8 50.3	47.5 44.5	56.1 55.4	55.7 61.3	46.8 47.4
Tuesday 03-10-15 Northbound Southbound	42.4 8.6	59.1 58.1	45.9 46.3	51.7 54.2	46.6 48.4	45.6 47.7	45.8 44.4	44.7 46.1	44.5 47.7	40.8 15.2	50.8 52.2	51.2 50.6	34.6 43.3	52.5 47.5	49.3 50.0	47.0 46.1	57.8 45.5	55.4 39.2	38.7 38.2	35.6 37.8	41.5 38.8	48.5 44.0	47.5 41.2	54.5 57.1	55.6 61.4	46.8 41.7
Wednesday 03-11-15 Northbound Southbound	32.3 31.6	56.5 57.3	52.6 43.2	54.2 51.8	48.7 45.9	43.4 48.8	44.5 46.1	45.9 48.5	44.8 52.3	40.6 18.4	50.3 50.1	51.4 50.9	37.7 27.6	53.7 50.0	51.1 47.3	47.4 50.8	45.0 49.2	46.4 40.9	39.8 38.9	40.8 32.2	28.7 38.5	50.2 50.7	45.6 45.8	52.2 54.2	55.6 57.1	45.5 43.4
Thursday 03-12-15 Northbound Southbound	47.1 25.9	58.1 59.8	49.7 43.2	54.0 52.0	46.6 48.2	45.7 51.3	44.1 47.0	44.5 46.6	50.3 52.3	40.0 24.9	47.4 56.0	43.2 57.9	37.0 36.2	54.6 53.2	48.5 52.0	46.5 49.0	44.9 46.0	45.9 39.2	36.5 35.2	39.8 40.6	42.3 41.2	46.1 47.4	44.3 42.5	52.1 47.1	57.2 59.6	45.6 45.3
Friday 03-13-15 Northbound Southbound	40.2 9.2	57.1 57.5	41.6 51.1	50.3 50.5	46.7 49.9	42.0 48.8	43.5 43.6	46.7 43.2	44.9 48.5	43.1 17.1	52.8 48.3	57.0 58.0	39.7 36.9	55.0 52.3	46.9 51.2	48.2 46.5	44.3 45.9	43.4 45.4	14.7 26.9	27.4 37.3	30.0 29.5	39.3 46.7	47.8 45.1	51.3 51.0	53.9 59.9	41.8 41.3
Saturday 03-14-15 Northbound Southbound	27.5 40.8	57.7 59.8	49.6 44.8	54.5 51.5	51.0 52.0	42.1 49.7	43.6 50.8	49.5 48.8	45.6 45.5	39.6 38.8	47.9 52.1	47.0 55.3	30.1 38.0	42.3 47.1	45.1 53.1	45.0 45.0	45.0 50.2	42.6 48.3	43.4 29.8	46.7 20.3	44.6 16.1	51.2 46.5	45.8 39.0	52.2 26.2	53.7 25.6	44.9 39.4
Highest Speed	47.1	59.9	55.8	57.5	52.0	51.3	50.8	50.2	52.3	44.6	59.4	58.0	46.5	55.0	57.3	53.9	57.8	55.4	43.4	46.7	46.4	51.9	49.3	57.1	61.4	49.1
Lowest Speed	8.6	50.9	39.2	47.3	44.1	41.1	37.8	41.4	35.9	15.2	47.1	43.2	27.6	42.3	45.1	42.9	44.3	39.2	14.7	14.4	16.1	35.6	39.0	26.2	25.6	39.4



# 2015 TRAVEL SPEED DATA

PAGE 2 OF 2

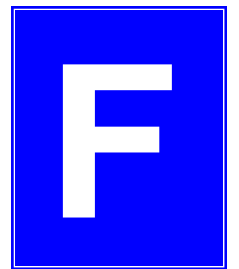
	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	OVERALL
	Stock Island	Boca Chica	Big Coppitt	Saddlebunch	Sugarloaf	Cudjoe	Summerland	Ramrod	Torch	Big Pine	Bahia Honda	7 Mile Bridge	Marathon	Grassy	Duck	Long	L. Matecumbe	Tea Table	U. Matecumbe	Windley	Plantation	Tavernier	Largo	Cross	Dade	
<b>TRAVEL SPEED ANALYSIS</b>																										
Mean	33.1	57.7	46.8	52.2	47.7	46.4	44.4	46.5	47.2	35.2	51.8	52.3	37.6	50.8	50.1	48.3	48.5	45.6	37.0	35.1	36.3	47.2	44.8	50.0	55.1	44.8
Median	32.9	58.1	47.2	51.7	47.5	46.9	44.1	46.6	47.5	38.0	52.1	52.6	37.9	51.5	50.1	48.8	48.4	45.7	38.5	37.9	38.5	48.5	44.8	52.0	55.8	45.1
Standard Deviation	9.1	2.0	4.3	2.2	2.1	2.9	2.9	2.4	3.3	8.0	2.7	4.3	3.6	3.0	2.5	2.4	3.2	4.2	6.0	7.4	7.0	4.0	2.7	6.5	6.4	2.2
Highest Speed	47.1	59.9	55.8	57.5	52.0	51.3	50.8	50.2	52.3	44.6	59.4	58.0	46.5	55.0	57.3	53.9	57.8	55.4	43.4	46.7	46.4	51.9	49.3	57.1	61.4	49.1
Lowest Speed	8.6	50.9	39.2	47.3	44.1	41.1	37.8	41.4	35.9	15.2	47.1	43.2	27.6	42.3	45.1	42.9	44.3	39.2	14.7	14.4	16.1	35.6	39.0	26.2	25.6	39.4
95% Confidence Interval	3.4	0.8	1.6	0.8	0.8	1.1	1.1	0.9	1.2	3.0	1.0	1.6	1.3	1.1	0.9	0.9	1.2	1.5	2.2	2.8	2.6	1.5	1.0	2.4	2.4	0.8
Upper Speed	36.5	58.5	48.4	53.0	48.4	47.5	45.5	47.4	48.4	38.2	52.8	53.9	38.9	51.9	51.1	49.2	49.6	47.1	39.2	37.9	38.9	48.7	45.8	52.4	57.4	45.6
Lower Speed	29.7	57.0	45.2	51.4	46.9	45.4	43.3	45.6	46.0	32.3	50.8	50.7	36.3	49.7	49.2	47.4	47.3	44.1	34.8	32.4	33.7	45.8	43.8	47.6	52.7	43.9
<b>LOS ANALYSIS</b>																										
Posted Speed	39.3	54.6	46.4	53.6	45.0	45.0	45.0	45.0	45.0	45.0	51.9	54.7	42.1	54.4	50.6	49.7	54.1	51.3	40.8	41.2	45.0	47.2	45.0	51.8	54.9	49.3
Signal Adjustment	N/A	N/A	N/A	N/A	4.4	N/A	N/A	N/A	N/A	3.2	N/A	N/A	N/A	1.5	N/A	N/A	N/A	N/A	N/A	N/A	3.1	2.1	3.3	N/A	N/A	N/A
Level of Service Median	B	A	B	C	A	A	B	A	A	C	B	C	A	C	B	B	D	D	C	C	C	A	A	B	N/A	C
95% Upper	A	A	A	B	A	A	B	A	A	C	B	B	A	C	B	B	C	C	C	C	C	A	A	B	N/A	C
95% Lower	B	A	B	C	A	B	C	B	B	E	B	C	A	D	B	C	D	D	D	E	E	B	A	C	N/A	D
LOS C Standard	22.0	50.1	41.9	49.1	36.1	40.5	40.5	40.5	40.5	37.3	47.4	50.2	22.0	48.4	46.1	45.2	49.6	46.8	36.3	36.7	37.4	40.6	37.2	47.3	N/A	45.0
Reserve	10.9	8.0	5.2	2.6	11.4	6.4	3.6	6.1	7.0	0.7	4.7	2.4	15.9	3.1	4.0	3.6	-1.2	-1.1	2.2	1.2	1.1	7.9	7.6	4.6	N/A	0.1

# APPENDIX F

## Comparisons of Historical Travel Speed Data

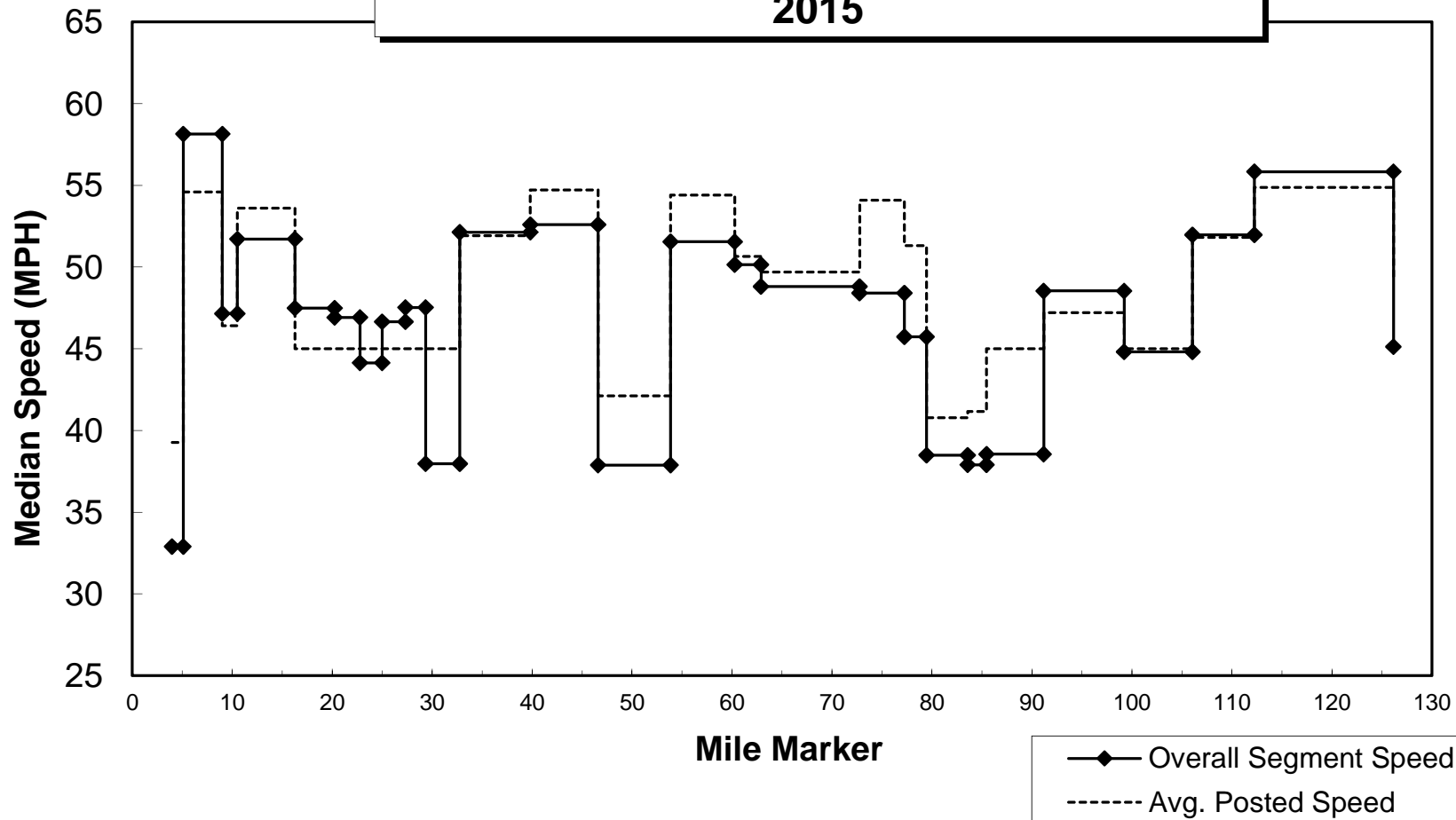


# A P P E N D I X

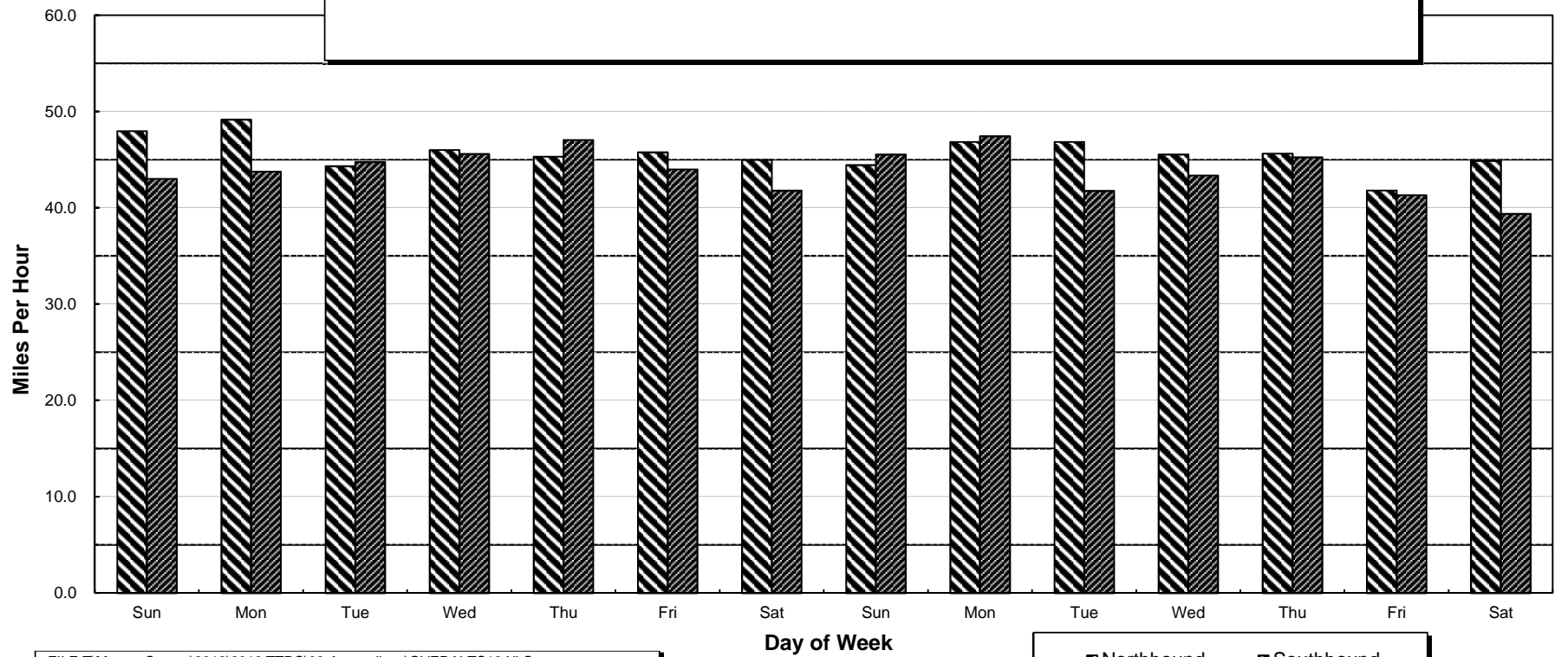


**URS**

## US - 1 MEDIAN NON-DIRECTIONAL SPEEDS 2015



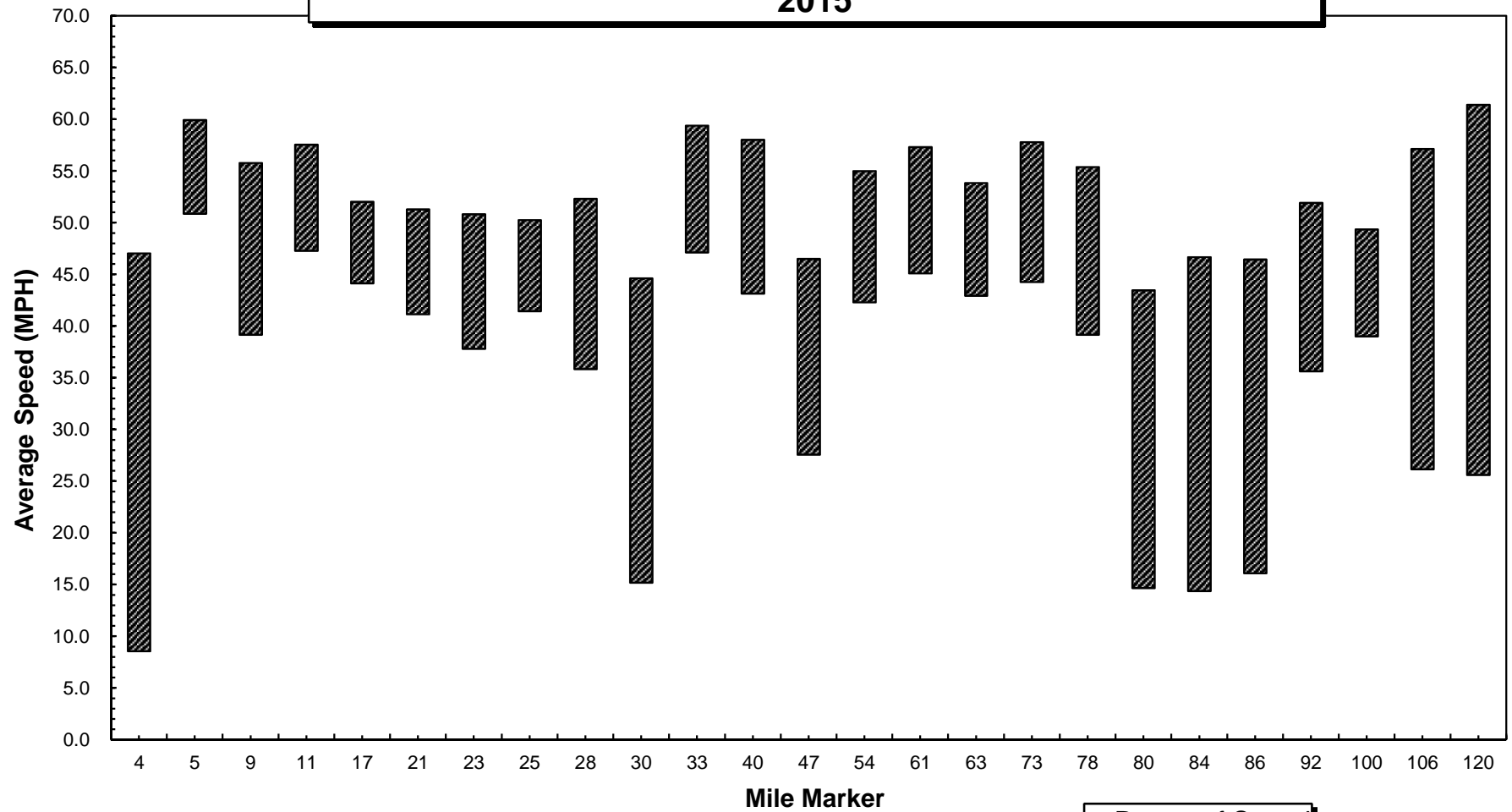
# US -1 OVERALL TRAVEL SPEEDS BY DAY OF WEEK 2015



FILE:T\MonroeCounty\2013\2013 TTDS\03-Appendices\OVERALTS13.XLS

Northbound Southbound

## US - 1 RANGE OF NON-DIRECTIONAL TRAVEL SPEEDS 2015



FILE:P:\MonroeCounty\2013\02-2013TTDS\03-Appendices\RangeNonDirectionalTS13.XLS

Range of Speed

COMPARISON OF HISTORICAL TRAVEL SPEED DATA (SHEET 1 OF 2)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
		Stock Island	Boca Chica	Big Coppitt	Saddlebunch	Sugarloaf	Cudjoe	Summerland	Ramrod	Torch	Big Pine	Bahia Honda	7-Mile Bridge	Marathon	Grassy	Duck	Long	L. Matecumbe	Tea Table	U. Matecumbe	Windley	Plantation	Tavernier	Key Largo	Cross	Date	Overall
Mean (mph)	2015	33.1	57.7	46.8	52.2	47.7	46.4	44.4	46.5	47.2	35.2	51.8	52.3	37.6	50.8	50.1	48.3	48.5	45.6	37.0	35.1	36.3	47.2	44.8	50.0	55.1	44.8
	2013	33.0	56.4	45.5	52.1	47.1	47.4	44.9	45.9	47.0	39.9	53.6	53.5	35.9	48.9	44.1	50.8	49.3	47.8	40.5	38.3	39.4	47.4	43.6	52.1	57.5	45.7
	2012	33.5	56.8	44.9	52.3	46.0	46.4	43.8	46.5	46.6	37.4	52.4	54.1	36.7	51.4	53.3	52.4	49.1	46.4	40.4	41.4	39.2	48.1	45.9	50.9	55.9	46.1
	2011	32.9	58.1	44.8	52.5	47.3	47.3	46.1	46.6	47.7	37.8	53.1	55.3	36.5	51.4	53.8	51.8	49.7	49.4	40.8	41.8	41.7	48.8	44.7	52.1	55.2	46.9
	2010	32.7	57.4	45.1	51.6	47.9	47.2	45.8	46.4	46.2	39.2	53.8	53.9	36.6	46.3	54.6	52.2	49.6	49.0	40.7	43.4	40.2	47.5	46.1	51.0	49.1	46.6
	2009	34.7	56.7	42.2	51.6	46.4	47.4	45.0	47.5	47.5	35.3	51.7	55.2	38.4	49.8	50.4	51.4	51.0	47.8	39.9	39.4	39.2	47.8	46.0	50.7	51.5	46.3
	2008	31.4	54.7	44.3	51.7	46.9	46.8	45.5	47.1	46.6	35.0	52.1	54.9	37.8	50.7	53.5	51.8	50.5	49.6	41.9	44.1	41.4	46.8	43.7	38.2	52.0	45.5
	2007	33.6	58.3	46.1	52.0	47.1	49.9	45.7	47.9	46.8	36.9	54.3	55.3	37.9	50.9	53.0	51.6	51.2	49.3	41.0	41.0	40.1	49.4	46.4	37.7	54.0	45.6
	2006	31.8	57.2	46.5	52.6	48.1	48.3	46.2	46.0	47.5	37.8	53.3	54.2	36.4	50.3	54.6	52.4	49.2	49.5	39.5	40.8	41.7	49.2	45.9	42.6	56.5	45.9
	2005	29.5	54.4	44.3	49.7	46.4	47.2	45.4	47.5	46.8	35.1	51.7	54.5	34.4	49.3	51.2	49.4	49.1	47.9	39.8	40.4	38.7	46.6	44.2	43.9	56.0	44.2
	2004	31.8	57.5	46.2	52.5	48.1	47.5	46.3	46.2	48.4	37.2	52.5	52.7	34.9	50.1	54.1	52.7	50.1	48.6	41.4	39.4	38.5	48.1	45.2	45.7	57.6	45.1
	Change(1)	0.1	1.4	1.3	0.1	0.5	-0.9	-0.5	0.6	0.2	-4.7	-1.8	-1.2	1.7	1.9	6.1	-2.5	-0.8	-2.2	-3.5	-3.2	-3.1	-0.1	1.1	-2.1	-2.4	-0.9
Change(2)	-2.5	1.0	1.5	0.7	-2.1	3.2	-0.3	-1.3	0.8	-2.9	-1.6	-0.6	-2.1	-0.3	-2.0	-2.5	-1.2	-3.8	-3.3	-6.6	-2.2	-1.6	-2.3	0.3	-1.4	-2.1	
Median (mph)	2015	32.9	58.1	47.2	51.7	47.5	46.9	44.1	46.6	47.5	38.0	52.1	52.6	37.9	51.5	50.1	48.8	48.4	45.7	38.5	37.9	38.5	48.5	44.8	52.0	55.8	45.1
	2013	33.1	57.1	46.5	51.2	47.4	48.0	44.9	45.8	47.9	40.1	53.7	54.9	35.8	51.0	47.8	51.2	49.9	47.4	40.2	41.2	41.3	46.9	43.9	52.9	58.3	45.9
	2012	32.0	57.0	45.3	52.6	46.4	45.4	44.7	45.8	47.4	39.2	53.5	53.5	36.7	51.0	53.0	52.6	49.2	45.2	40.7	41.3	41.9	48.7	46.9	52.2	57.2	47.0
	2011	33.7	58.4	45.9	52.8	46.7	46.8	46.0	46.4	48.0	38.7	53.4	55.1	36.4	51.3	53.7	52.2	49.6	49.2	41.9	42.7	41.5	48.8	44.8	52.4	55.5	47.1
	2010	34.0	57.3	43.8	52.3	48.0	47.1	45.9	45.4	46.5	39.7	53.8	53.8	36.7	47.2	54.0	53.1	49.2	49.6	41.4	45.6	41.3	47.7	45.8	50.7	48.9	46.9
	2009	34.2	56.7	42.3	52.4	46.8	47.0	44.7	47.6	47.9	37.9	51.7	55.4	38.2	50.3	51.3	51.3	51.4	48.5	40.8	42.2	39.6	48.2	46.0	52.1	51.1	46.6
	2008	31.7	55.5	45.7	51.6	47.2	47.7	46.4	47.7	46.6	35.7	52.3	56.1	37.3	50.7	54.4	52.3	51.0	50.0	42.1	43.8	41.9	47.6	44.4	38.3	52.0	46.4
	2007	34.6	57.9	45.2	52.2	47.8	48.5	45.6	48.1	47.1	39.0	54.1	55.1	37.7	50.9	52.9	51.3	51.1	49.8	41.4	42.4	41.8	49.9	45.7	37.1	53.9	45.7
	2006	31.2	57.7	46.2	52.1	48.1	48.1	45.7	46.3	48.2	38.0	54.3	53.9	36.0	50.3	53.9	52.1	49.0	50.1	40.6	41.4	42.2	49.0	45.9	44.0	56.5	45.9
	2005	30.2	55.8	44.7	50.9	46.6	47.8	45.7	47.8	46.8	36.4	52.6	56.6	35.2	49.5	53.6	50.8	50.0	49.9	39.1	41.8	39.4	47.7	44.7	44.4	57.5	45.3
	2004	32.0	58.2	46.1	53.7	48.3	48.1	46.4	46.4	47.6	38.4	52.5	53.1	35.2	50.3	54.4	52.9	50.5	49.0	40.9	41.8	40.0	48.3	45.5	45.0	58.4	45.4
	Change(1)	-0.2	1.0	0.7	0.5	0.1	-1.0	-0.7	0.8	-0.4	-2.1	-1.6	-2.3	2.0	0.5	2.3	-2.4	-1.5	-1.7	-1.7	-3.3	-2.7	1.7	0.9	-0.9	-2.5	-0.8
Change(2)	-3.2	2.0	0.5	-0.1	-2.8	3.9	-0.7	-1.7	1.0	-0.9	-1.2	0.2	-1.8	0.4	-2.5	-1.9	-2.0	-4.0	-1.6	-5.5	-0.2	0.3	-2.0	0.8	-1.0	-1.8	
Highest (mph)	2015	47.1	59.9	55.8	57.5	52.0	51.3	50.8	50.2	52.3	44.6	59.4	58.0	46.5	55.0	57.3	53.9	57.8	55.4	43.4	46.7	46.4	51.9	49.3	57.1	61.4	49.1
	2013	45.2	61.0	53.4	58.1	51.6	50.5	49.0	53.4																		

COMPARISON OF HISTORICAL TRAVEL SPEED DATA (SHEET 2 OF 2)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
		Stock Island	Boca Chica	Big Coppitt	Saddlebunch	Sugarloaf	Cudjoe	Summerland	Ramrod	Torch	Big Pine	Bahia Honda	7-Mile Bridge	Marathon	Grassy	Duck	Long	L. Matecumbe	Tea Table	U. Matecumbe	Windley	Plantation	Tavernier	Key Largo	Cross	Dade		Overall
Mean (mph)	2003	35.7	56.8	45.3	52.4	47.8	47.2	45.4	46.7	47.1	38.2	54.4	54.2	36.8	50.0	52.6	51.5	49.5	48.6	41.1	39.6	40.5	50.1	48.3	47.4	57.9		45.9
	2002	34.0	56.6	45.8	51.5	48.0	47.9	44.4	44.3	44.2	32.3	51.1	51.8	36.1	50.3	54.3	52.4	50.7	49.2	41.6	38.9	40.1	48.9	46.1	48.3	55.3		45.8
	2001	35.3	59.4	48.2	53.5	49.0	48.4	44.7	47.3	47.0	31.5	54.7	53.9	37.9	50.8	53.8	54.4	51.4	50.4	40.5	37.5	41.3	49.8	47.4	48.4	58.1		46.4
	2000	31.9	58.6	47.0	53.2	48.8	49.0	45.0	47.4	45.4	35.1	52.7	52.6	38.0	51.0	53.8	52.2	50.7	50.2	39.9	37.7	37.5	48.9	46.4	42.3	57.8		45.7
	1999	28.5	57.1	45.8	52.7	51.0	47.5	44.9	47.1	46.8	34.1	52.7	52.5	37.4	49.8	53.1	51.4	50.5	49.8	41.0	37.5	42.2	49.0	46.8	49.1	57.9		46.2
	1998	28.8	57.3	46.4	52.1	50.0	48.2	44.7	47.1	46.3	33.3	52.7	52.8	38.2	51.6	52.1	50.9	50.2	48.8	40.8	36.7	38.4	48.9	47.2	48.4	58.2		45.9
	1997	32.4	58.4	47.2	53.1	50.2	48.9	45.6	47.1	46.2	35.4	53.5	51.7	40.5	52.0	53.0	52.2	50.8	49.5	41.7	35.0	40.5	49.9	46.6	45.8	58.4		46.7
	1996	31.5	57.2	48.2	52.9	50.1	47.8	44.9	48.1	46.9	35.8	53.7	52.4	39.1	51.7	53.6	50.3	51.0	48.9	41.2	38.4	40.5	49.6	46.4	47.7	56.2		46.8
	1995	35.5	57.8	47.4	52.5	50.9	47.5	44.4	46.8	46.4	34.6	53.5	52.2	39.5	51.3	51.1	51.5	50.9	49.2	41.8	40.2	41.7	49.7	49	50.6	57.9		47.4
	1994	35.9	57.7	47.2	51.7	50.9	49.0	45.4	47.5	46.8	35.0	53.2	52.1	39.3	50.9	53.5	51.2	50.2	50.1	41.6	39.3	41.6	49.7	48.6	49.3	57.2		46.7
	1993	36.7	57.9	47.8	53.0	50.8	49.1	44.9	48.8	47.3	35.4	53.0	51.2	40.4	52.0	53.2	52.0	50.9	49.6	41.8	41.1	42.2	49.3	47.5	49.7	57.3		47.2
	1992	35.6	56.7	45.3	51.5	49.8	43.2	44.7	47.8	46.4	38.1	53.4	52.9	39.7	51.1	52.1	50.8	49.7	49.4	40.3	41.7	38.5	48.8	47.1	49.7	56.5		46.9
	Change(1)	0.1	1.4	1.3	0.1	0.5	-0.9	-0.5	0.6	0.2	-4.7	-1.8	-1.2	1.7	1.9	6.1	-2.5	-0.8	-2.2	-3.5	-3.2	-3.1	-0.1	1.1	-2.1	-2.4		-0.9
	Change(2)	-2.5	1.0	1.5	0.7	-2.1	3.2	-0.3	-1.3	0.8	-2.9	-1.6	-0.6	-2.1	-0.3	-2.0	-2.5	-1.2	-3.8	-3.3	-6.6	-2.2	-1.6	-2.3	0.3	-1.4		-2.1
Median (mph)	2003	35.8	58.0	46.1	52.3	48.3	47.5	45.3	46.7	47.2	39.7	54.2	54.3	38.2	50.9	53.0	52.3	50.1	49.2	41.4	42.2	41.3	49.9	48.4	47.7	58.9		46.1
	2002	33.3	57.1	45.7	51.3	47.9	48.1	45.6	47.3	46.7	35.4	53.2	52.4	35.8	50.7	54.0	52.5	51.5	50.0	41.2	41.2	42.3	48.6	45.4	51.1	57.5		47.1
	2001	34.6	59.6	48.6	53.0	49.2	47.6	44.9	47.5	47.6	32.9	54.7	53.2	37.7	51.3	55.1	54.5	51.3	50.0	41.2	39.5	42.5	49.7	47.5	48.9	58.5		46.9
	2000	30.5	58.4	46.9	53.5	49.4	48.7	45.3	47.1	47.1	35.8	53.0	52.4	38.2	50.8	53.5	52.5	50.7	50.3	41.2	39.5	39.0	48.8	46.8	47.7	58.2		46.4
	1999	27.3	57.0	45.5	52.8	51.4	47.6	45.2	47.8	47.7	34.1	52.1	52.6	37.4	50.7	53.1	52.1	50.4	49.6	41.6	38.4	42.0	49.1	45.7	50.5	57.6		46.7
	1998	30.1	57.3	46.0	52.6	50.0	48.2	45.0	47.0	46.6	33.9	52.6	52.6	37.6	52.3	52.5	51.4	50.2	48.6	40.6	38.3	41.4	48.8	47.3	52.7	58.4		45.7
	1997	32.6	58.5	46.1	53.4	49.9	48.5	45.1	47.6	46.8	36.7	53.2	52.8	40.1	51.9	52.4	52.3	51.3	50.7	42.0	38.4	41.6	50.5	47.4	49.1	58.8		46.5
	1996	30.7	57.3	48.0	52.4	49.3	47.7	45.0	48.8	46.7	37.0	53.9	52.5	38.9	52.0	53.7	51.0	51.6	48.6	41.2	41.2	42.6	49.3	46.0	50.7	56.8		47.1
	1995	34.7	57.3	47.5	52.2	50.9	47.4	44.5	47.3	46.4	35.1	53.6	51.8	39.3	51.0	51.5	51.2	51.9	49.5	41.7	41.1	43.1	49.6	48.6	52.2	58.2		47.8
	1994	36.2	57.6	47.5	52.4	51.4	48.9	45.6	46.9	47.3	36.0	53.0	52.1	39.2	51.8	52.4	51.6	50.3	50.3	42.0	40.9	42.6	49.9	48.7	50.2	57.6		47.3
	1993	37.1	57.9	48.2	53.3	51.1	49.2	45.3	49.4	47.4	37.7	53.5	51.3	40.5	52.7	53.9	51.4	50.7	49.1	41.9	41.4	43.7	49.2	47.6	50.6	57.3		47.4
	1992	36.1	56.1	46.7	51.8	50.3	43.0	44.8	48.3	46.5	38.9	53.3	52.4	39.7	51.1	52.6	50.7	50.4	49.7	40.1	43.4	38.7	48.2	46.8	51.2	56.8		46.9
	Change(1)	-0.2	1.0	0.7	0.5	0.1	-1.0	-0.7	0.8	-0.4	-2.1	-1.6	-2.3	2.0	0.5	2.3	-2.4	-1.5	-1.7	-1.7	-3.3	-2.7	1.7	0.9	-0.9	-2.5		-0.8
	Change(2)	-3.2	2.0	0.5	-0.1	-2.8	3.9	-0.7	-1.7	1.0	-0.9	-1.2	0.2	-1.8	0.4	-2.5	-1.9	-2.0	-4.0	-1.6	-5.5	-0.2	0.3	-2.0	0.8	-1.0		-1.8
Highest (mph)	20																											

# APPENDIX G

## 2015 Level of Service and Reserve Capacity



# A P P E N D I X



**URS**



## 2015 LEVEL OF SERVICE AND RESERVE CAPACITY

SEGMENT	LENGTH (miles)	FACILITY TYPE	POSTED SPEED		ADJ. FOR SIGNAL (mph)	ADJUSTED LOS C CRITERIA (mph)	MEDIAN TRAVEL SPEED (mph)	LOS	RESERVE SPEED (mph)	2015		2013	
			Limits (mph)	Average (mph)						MAXIMUM RESERVE	5% ALLOCATION	MAXIMUM RESERVE	5% ALLOCATION
										VOLUME (trips)	BELOW LOS C (trips)	VOLUME (trips)	BELOW LOS C (trips)
1 Stock Island (4.0 - 5.0)	1.10	4-L/D	30/45	39.3	N/A	22.0	32.9	B	10.9	1,986	N/A	2,022	N/A
2 Boca Chica (5.0- 9.0)	3.9	4-L/D	45/55	54.6	N/A	50.1	58.1	A	8.0	5,167	N/A	4,521	N/A
3 Big Coppitt (9.0- 10.5)	1.5	2-L/U	45/55	46.4	N/A	41.9	47.2	B	5.2	1,292	N/A	1,118	N/A
4 Saddlebunch (10.5- 16.5)	5.8	2-L/U	45/55	53.6	N/A	49.1	51.7	C	2.6	2,497	N/A	2,017	N/A
5 Sugarloaf (16.5- 20.5)	3.9	2-L/U	45	45.0	4.4	36.1	47.5	A	11.4	7,363	N/A	7,298	N/A
6 Cudjoe (20.5- 23.0)	2.5	2-L/U	45	45.0	N/A	40.5	46.9	A	6.4	2,650	N/A	3,105	N/A
7 Summerland (23.0- 25.0)	2.2	2-L/U	45	45.0	N/A	40.5	44.1	B	3.6	1,312	N/A	1,603	N/A
8 Ramrod (25.0- 27.5)	2.3	2-L/U	45	45.0	N/A	40.5	46.6	A	6.1	2,323	N/A	2,019	N/A
9 Torch (27.5- 29.5)	2.1	2-L/U	45	45.0	N/A	40.5	47.5	A	7.0	2,434	N/A	2,573	N/A
10 Big Pine (29.5- 33.0)	3.4	2-L/U	45	45.0	3.2	37.3	38.0	C	0.7	394	N/A	1,802	N/A
11 Bahia Honda (33.0- 40.0)	7.0	2-L/U (70%) 4-L/D (30%)	45/50/55	51.9	N/A	47.4	52.1	B	4.7	5,448	N/A	6,723	N/A
12 7-Mile Bridge (40.0- 47.0)	6.8	2-L/U	45/50/55	54.7	N/A	50.2	52.6	C	2.4	2,703	N/A	5,518	N/A
13 Marathon (47.0- 54.0)	7.3	2-L/U (13%) 4-L/D (87%)	35/45	42.1	N/A	22.0	37.9	A	15.9	19,221	N/A	16,683	N/A
14 Grassy (54.0- 60.5)	6.4	2-L/U	45/55	54.4	1.5	48.4	51.5	C	3.1	3,286	N/A	2,650	N/A
15 Duck (60.5- 63.0)	2.7	2-L/U	45/55	50.6	N/A	46.1	50.1	B	4.0	1,788	N/A	(1,207)	4
16 Long (63.0- 73.0)	9.9	2-L/U	40/45/50/55	49.7	N/A	45.2	48.8	B	3.6	5,902	N/A	3,771	N/A
17 L Matecumbe (73.0- 77.5)	4.5	2-L/U	50/55	54.1	N/A	49.6	48.4	D	-1.2	(894)	967	(447)	4
18 Tea Table (77.5- 79.5)	2.2	2-L/U	45/55	51.3	N/A	46.8	45.7	D	-1.1	(401)	459	(1,129)	4
19 U Matecumbe (79.5- 84.0)	4.1	2-L/U	30/40/45	40.8	N/A	36.3	38.5	C	2.2	1,494	N/A	(1,154)	3
20 Windley (84.0- 86.0)	1.9	2-L/U	30/40/45	41.2	N/A	36.7	37.9	C	1.2	378	N/A	220	N/A
21 Plantation (86.0- 91.5)	5.8	2-L/U	45	45.0	3.1	37.4	38.5	C	1.1	1,057	N/A	4,226	N/A
22 Tavernier (91.5- 99.5)	8.0	4-L/D	45/50	47.2	2.1	40.6	48.5	A	7.9	10,466	N/A	8,214	N/A
23 Key Largo (99.5- 106.0)	6.8	4-L/D	45	45.0	3.3	37.2	44.8	A	7.6	8,558	N/A	7,432	N/A
24 Cross (106.0- 112.5)	6.2	2-L/U	45/55	51.8	N/A	47.3	52.0	B	4.6	4,723	N/A	6,058	N/A
Overall	108.3					45.0	45.1	C	0.1	1,855			

# APPENDIX H

## Summary of Delay Events



# A P P E N D I X



**URS**

2015 TTDS DELAY DATA SUMMARY

Seg. #	Day 1 Sun Mar 01 2015			Day 2 Mon Mar 02 2015			Day 3 Tue Mar 03 2015			Day 4 Wed Mar 04 2015			Day 5 Thu Mar 05 2015			Day 6 Fri Mar 06 2015			Day 7 Sat Mar 07 2015			Day 8 Sun Mar 08 2015			Day 9 Mon Mar 09 2015			Day 10 Tue Mar 10 2015			Day 11 Wed Mar 11 2015			Day 12 Thu Mar 12 2015			Day 13 Fri Mar 13 2015			Day 14 Sat Mar 14 2015			TOTAL
NB	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time				
1	TS	0:00:21	0:00:00	TS	0:00:27	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	TS	0:00:05	0:00:00	TS(2)	0:00:43	0:00:00	TS	0:00:14	0:00:00	0	0:00:00	0:00:00	TS	0:00:21	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	TS	0:00:30	0:00:00	00:02:41
2	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:00			
3	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:00			
4	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:00			
5	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	CS	0:00:33	0:00:33	0	0:00:00	0:00:00	0	0:00:00	0:00:00	TS	0:00:09	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:09
6	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:00			
7	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:00			
8	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:00			
9	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	CS	0:00:45	0:00:45	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:00
10	0	0:00:00	0:00:00	TS	0:00:08	0:00:00	RT	0:00:06	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	TS	0:00:34	0:00:00	CS, TS	0:01:40	0:01:01	TS	0:00:10	0:00:00	0	0:00:00	0:00:00	TS	0:00:12	0:00:00	LT	0:00:05	0:00:00	0	0:00:00	0:00:00	00:01:54
11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:00			
12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:00			
13	0	0:00:00	0:00:00	TS	0:00:47	0:00:00	TS(2), SB, RT	0:04:02	0:00:22	TS(3)	0:01:03	0:00:00	LT, SB(2), TS	0:02:17	0:01:07	TS(3)	0:01:03	0:00:00	TS(2)	0:01:05	0:00:00	TS(3)	0:01:06	0:00:00	TS(2)	0:00:28	0:00:00	TS(3)	0:01:29	0:00:00	TS(4)	0:01:09	0:00:00	TS(3)	0:01:26	0:00:00	TS(2)	0:00:31	0:00:00	TS(2)	0:03:59	0:00:00	00:18:56
14	TS(2)	0:01:09	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	TS	0:00:17	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:01:26			
15	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:00			
16	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:00			
17	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	00:00:00			
18	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	LT	0:00:07	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00										

NB	EXCLUDED FROM OVERALL TIME	EXCLUDED FROM SEGMENT TIME	TOTAL DELAY TIME	TS DELAY	# OF TS EVENTS	DB DELAY	# OF DB EVENTS	AC DELAY	# OF AC EVENTS	LT DELAY	# OF LT EVENTS	SPECIAL EVENT DELAY	# OF SE EVENTS	RT DELAY	# OF RT EVENTS	CG DELAY	# OF CG EVENTS	SB DELAY	# OF SB EVENTS	CS DELAY	# OF CS EVENTS	EV DELAY	# OF EV EVENTS	TOTAL # OF EVENTS
1	00:00:00	00:00:00	00:02:41	00:02:41	8																			8
2	00:00:00	00:00:00	00:00:00																					0
3	00:00:00	00:00:00	00:00:00																					0
4	00:00:00	00:00:00	00:00:00																					0
5	00:00:33	00:00:33	00:00:42	00:00:09	1															00:00:33	1			2
6	00:00:00	00:00:00	00:00:00																					0
7	00:00:00	00:00:00	00:00:00																					0
8	00:00:00	00:00:00	00:00:00																					0
9	00:00:45	00:00:45	00:00:00																					0
10	00:01:01	00:01:01	00:02:55	00:01:43	5					00:00:05	1			00:00:06	1					00:01:01	1			8
11	00:00:00	00:00:00	00:00:00																					0
12	00:00:00	00:00:00	00:00:00																					0
13	00:01:29	00:01:29	00:20:25	00:18:02	31					00:00:34	1			00:00:20	1			00:01:29	3					36
14	00:00:00	00:00:00	00:01:26	00:01:26	3																			3
15	00:00:00	00:00:00	00:00:00																					0
16	00:00:00	00:00:00	00:00:00																					0
17	00:00:00	00:00:00	00:00:00																					0
18	00:00:00	00:00:00	00:00:07							00:00:07	1													1
19	00:06:23	00:06:23	00:19:52											00:00:11	1	00:13:18	3			00:06:23	3			7
20	00:17:46	00:17:46	00:23:11	00:00:03	1											00:05:22	2			00:17:46	6			9
21	00:01:03	00:01:03	00:16:13	00:09:38	10			00:00:30	1	00:00:47	1			00:00:16	1	00:04:29	3			00:00:33	1			17
22	00:00:00	00:00:00	00:16:16	00:16:02	14											00:00:14	1							15
23	00:00:00	00:00:00	00:01:53	00:01:53	3																			3
24	00:04:40	00:04:40	00:00:00																					0
25	00:00:00	00:00:00	00:00:00																					0
TOTAL	00:33:40	00:33:40	01:45:41	00:51:37	76	00:00:00	0	00:00:30	1	00:01:33	4	00:00:00	0	0:00:53	4	00:23:23	9	00:01:29	3	00:26:16	12	00:00:00	0	109
SB																								0
25	00:00:00	00:18:22	00:18:22													0:18:22	3							3
24	00:01:02	00:01:02	00:08:39													00:07:37	6					00:01:02	1	7
23	00:12:57	00:12:57	00:20:06	00:07:09	14			00:12:57	3															17
22	00:00:00	00:00:00	00:12:15	00:12:15	5																			5
21	00:14:04	00:32:50	00:58:11	00:01:33	4	00:18:46	3	00:11:30	4	00:00:05	1					00:23:43	11			00:02:34	2			25
20	00:02:29	00:02:29	00:07:52													00:05:23	5			00:02:29	1			6
19	00:00:45	00:00:45	00:08:51													00:08:06	5			00:00:45	2			7
18	00:00:00	00:00:00	00:00:00																					0
17	00:00:00	00:00:00	00:00:43							00:00:43	3													3
16	00:00:00	00:00:00	00:01:05	00:00:17	1											00:00:48	1							2
15	00:00:00	00:00:00	00:00:00																					0
14	00:00:00	00:00:00	00:00:07	00:00:07	1																			1
13	00:03:04	00:03:04	00:14:23	00:10:01	23					00:00:24	2					00:00:54	1					00:03:04	2	28
12	00:00:00	00:00:00	00:00:00																					0
11	00:00:00	00:00:00	00:00:20							00:00:20	1													1
10	00:00:00	00:00:00	00:39:15	00:39:05	11					00:00:10	1													12
9	00:00:00	00:00:00	00:00:00																					0
8	00:00:00	00:00:00	00:00:00																					0
7	00:00:16	00:00:16	00:00:16																	00:00:16	1			1
6	00:00:00	00:00:00	00:00:00																					0
5	00:00:00	00:00:00	00:00:00																					0
4	00:00:00	00:00:00	00:00:00																					0
3	00:00:00	00:00:00	00:00:00																					0
2	00:00:00	00:00:00	00:00:00																					0
1	00:00:00	00:00:00	00:17:40	00:17:40	17																			17
TOTAL	00:34:37	01:11:45	03:28:05	01:28:07	76	00:18:46	3	00:24:27	7	00:01:42	8	00:00:00	0	00:00:00	0	01:04:53	32	00:00:00	0	00:06:04	6	00:04:06	3	135
COMB. (NB & SB) =	01:08:17	01:45:25	05:13:46	02:19:44	152	00:18:46	3	00:24:57	8	00:03:15	12	00:00:00	0	00:00:53	4	01:28:16	41	00:01:29	3	00:32:20	18	00:04:06	3	244
AVG:			00:01:17	00:00:55		00:06:15		00:03:07		00:00:16				00:00:13		00:02:09		00:00:30		00:01:48		00:01:22		

## SUMMARY OF DELAY EVENTS

2015 TTDS

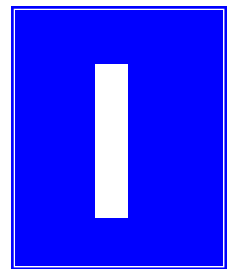
Delay Source	Segment Number	Segment Limits			Number of Events	Total Delay	Mean Delay Per Event	Mean Delay Per Trip
		From	To	Length (miles)				
Traffic Signal	1	Cow Key Bridge (N) - MM 4.0	Key Haven Blvd - MM 5.0	1.1	25	00:20:21	00:00:49	00:00:44
	5	Harris Channel Bridge (N) - MM 16.5	Bow Channel Bridge (N) -MM 20.5	4	1	00:00:09	00:00:09	00:00:00
	10	N Pine Channel Br (N) - MM 29.5	Long Beach Dr - MM 33.0	3.5	16	00:40:48	00:02:33	00:01:27
	13	7-Mile Bridge (N) -MM 47.0	Cocoa Plum Drive -MM 54.0	7	54	00:28:03	00:00:31	00:01:00
	14	Cocoa Plum Dr - MM 54.0	Toms Harbor Ch Br (S) - MM 60.5	6.5	4	00:01:33	00:00:23	00:00:03
	16	Long Key Br (S) - MM 63.0	Channel #2 Br (N) - MM 73.0	10	1	00:00:17	00:00:17	00:00:01
	20	Whale Harbor Br (S) - MM84.0	Snake Creek Br (N) - MM 86.0	2	1	00:00:03	00:00:03	00:00:00
	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.5	14	00:11:11	00:00:48	00:00:24
	22	Ocean Blvd - MM 91.5	Atlantic Blvd - MM 99.5	8	19	00:28:17	00:01:29	00:01:01
	23	Atlantic Blvd - MM 99.5	C-905 (Flashing Light) - MM 106.0	6.5	17	00:09:02	00:00:32	00:00:19
	24	C-905 (Flashing Light) - MM 106.0	County Line Sign - MM 112.5	6.5	0	00:00:00	#DIV/0!	00:00:00
				Subtotal	152	02:19:44	00:00:55	00:04:59
Congestion	13	7-Mile Bridge (N) -MM 47.0	Cocoa Plum Drive -MM 54.0	7	1	00:00:54	00:00:54	00:00:02
	16	Long Key Br (S) - MM 63.0	Channel #2 Br (N) - MM 73.0	10	1	00:00:48	00:00:48	00:00:02
	19	Tea Table Relief Bridge (N) - MM 79.5	Whale Harbor Bridge (S) -MM 84.0	4.5	8	00:21:24	00:02:40	00:00:46
	20	Whale Harbor Br (S) - MM84.0	Snake Creek Br (N) - MM 86.0	2	7	00:10:45	00:01:32	00:00:23
	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.5	14	00:28:12	00:02:01	00:01:00
	22	Ocean Blvd - MM 91.5	Atlantic Blvd - MM 99.5	8	1	00:00:14	00:00:14	00:00:01
	24	C-905 - MM 106.0	County Line Sign - MM 112.5	6.5	6	00:07:37	00:01:16	00:00:16
	25	County Line Sign - MM 112.5	Card Sound Road - MM 126.5	14	3	00:18:22	00:06:07	00:00:39
				Subtotal	41	01:28:16	00:02:09	00:03:09
Left Turn/Right Turn	10	7-Mile Bridge (N) -MM 47.0	Cocoa Plum Drive -MM 54.0	7	3	00:00:21	00:00:07	00:00:01
	11	Long Beach Dr - MM 33.0	7-Mile Bridge (N) - MM 47.0	14	1	00:00:20	00:00:20	00:00:01
	13	7-Mile Bridge (N) -MM 47.0	Cocoa Plum Drive -MM 54.0	7	4	00:01:18	00:00:20	00:00:03
	17	Channel #2 Br (N) - MM 73.0	Lignum V Br (S) - MM 77.5	4.5	3	00:00:43	00:00:14	00:00:02
	18	Lignumvitae Bridge (S) - MM 77.5	Tea Table Relief Bridge (N) - MM 79.5	2	1	00:00:07	00:00:07	00:00:00
	19	Tea Table Relief Bridge (N) - MM 79.5	Whale Harbor Bridge (S) -MM 84.0	4.5	1	00:00:11	00:00:11	00:00:00
	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.5	3	00:01:08	00:00:23	00:00:02
				Subtotal	16	00:04:08	00:00:16	00:00:09
Construction/Accident/School Bus/ Emergency Vehicle	5	Harris Channel Bridge (N) - MM 16.5	Bow Channel Bridge (N) -MM 20.5	4	1	00:00:33	00:00:33	00:00:01
	7	Spanish Main Drive -MM 23.0	East Shore Drive - MM 25.0	2	1	00:00:16	00:00:16	00:00:01
	10	N Pine Channel Br (N) - MM 29.5	Long Beach Dr - MM 33.0	3.5	1	00:01:01	00:01:01	00:00:02
	13	7-Mile Bridge (N) -MM 47.0	Cocoa Plum Drive -MM 54.0	7	5	00:04:33	00:00:55	00:00:10
	19	Tea Table Relief Bridge (N) - MM 79.5	Whale Harbor Bridge (S) -MM 84.0	4.5	5	00:07:08	00:01:26	00:00:15
	20	Whale Harbor Br (S) - MM84.0	Snake Creek Br (N) - MM 86.0	2	7	00:19:52	00:02:50	00:00:43
	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.5	8	00:15:07	00:01:53	00:00:32
	23	Atlantic Blvd - MM 99.5	C-905 (Flashing Light) - MM 106.0	6.5	3	00:12:57	00:04:19	00:00:28
	24	C-905 (Flashing Light) - MM 106.0	County Line Sign - MM 112.5	6.5	1	00:01:02	00:01:02	00:00:02
				Subtotal	32	01:02:29	00:01:57	00:02:14
Drawbridge	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.5	3	00:18:46	00:06:15	00:00:40
				Subtotal	3	00:18:46	00:06:15	00:00:40
All Sources				TOTAL	244	05:13:23	00:01:17	00:11:12

# APPENDIX I

## 2015 Data Collection Schedule



# A P P E N D I X



**URS**

<b>2015 Monroe County Travel Time &amp; Delay Study 2015</b>						
<i>February / March</i>						
<i>Sunday</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>
<b>22 Feb</b>	<b>23 Feb</b>	<b>24 Feb</b>	<b>25 Feb</b>	<b>26 Feb</b>	<b>27 Feb</b>	<b>28 Feb</b>
<b>1 Mar</b> 1 - HS 11:15 AM 2 - KW 3:30 PM	<b>2 Mar</b> 3 - HS 11:45 AM 4 - KW 4:00 PM	<b>3 Mar</b> 5 - HS 9:30 AM 6 - KW 1:45 PM	<b>4 Mar</b> 7 - HS 9:45 AM 8 - KW 1:30 PM	<b>5 Mar</b> 9 - HS 9:45 AM 10 - KW 2:00 PM	<b>6 Mar</b> 11 - HS 10:15 AM 12 - KW 2:30 PM	<b>7 Mar</b> 13 - HS 10:45 AM 14 - KW 3:00 PM
<b>8 Mar</b> 15 - KW 11:30 AM 16 - HS 3:15 PM	<b>9 Mar</b> 17 - KW 12:00 AM 18 - HS 3:45 PM	<b>10 Mar</b> 19 - KW 10:45 AM 20 - HS 2:30 PM	<b>11 Mar</b> 21 - KW 10:15 AM 22 - HS 1:45 PM	<b>12 Mar</b> 23 - KW 10:00 AM 24 - HS 1:45 PM	<b>13 Mar</b> 25 - KW 10:30 AM 26 - HS 2:15 PM	<b>14 Mar</b> 27 - KW 11:00 AM 28 - HS 2:45 PM
<b>15 Mar</b>	<b>16 Mar</b>	<b>17 Mar</b>	<b>18 Mar</b>	<b>19 Mar</b>	<b>20 Mar</b>	<b>21 Mar</b>

## Notes:

1. Data should be downloaded from the DMI and QCd immediately after every travel run.
2. A copy of the raw data sheet should be faxed/emailed to the office every day.
3. Vehicle tire pressure should be checked before every run and maintained as constant.
4. HS - Start at Homestead; KW - Start at Key West.

2/13/2015



**URS**

URS CORPORATION SOUTHERN  
7800 Congress Avenue, Suite 200, Boca Raton, Florida 33487